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LET'S LAUGH

The clever remarks that children make are a source of pleasure to all of us. Of those you have heard, what one was the most amusing? Send it to us, and, if it is published, we will mail you a check for one dollar. All items should be typed or written in ink. Address: Let's Laugh, THE INSTRUCTOR, Editorial Department, Dansville, N.Y.

Miss Smith had emphasized the necessity of eating fruit at breakfast. One question on a test read, "Mary had oatmeal, toast, butter, and hot chocolate for breakfast. What was missing?"

A youngster's answer read, "A napkin."

THERESA POUSSON
Alexandria, Louisiana

A little boy, aged four, asked the meaning of *guaranteed*.

"It means very good, most reliable, the best," his mother answered, and forgot about it. When bedtime came, he hugged her in giving her his good-night kiss, and said with deep feeling, "Good night, guaranteed mother!"

LESTER KARNS
Oil City, Pennsylvania

The children at school were talking about the movie, "One Foot in Heaven." One second-grade girl went home, and asked her mother whether she could go to see "Twelve Inches of Heaven."

MARIAN NEWQUIST
West Chester, Iowa

We were having deviled eggs for lunch. My little nephew had eaten one and sat as if waiting for another. When I asked him what he would like to have he answered, "I'd like some more of those naughty-word eggs."

LULU NETHWAY
Wahoo, Nebraska

The family had searched in vain for a small screw that had fallen out of a light fixture. Three-year-old Nan had been asked several times whether she had seen the screw. Each time she had answered, "No." Upon being questioned once more, she replied, "No, I didn't see any screw but I did find a nail with a lot of little ruffles on it."

LOREE FERGUSON
Medford, Oklahoma

One morning little Jack and his dog went with Jack's mother to the store. At the door they were met by a pleasant clerk who greeted Jack with "Good morning, laddie."

The child answered, "My name is Jack. Laddie is the dog."

SISTER M. DESALES
Blauvelt, New York

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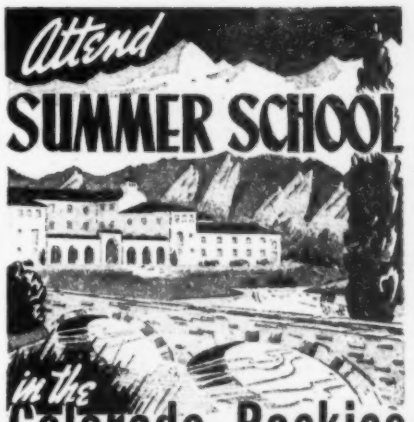

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Let's look at this issue

DEAR READER:

Are you planning some stimulating class activity to interest your pupils during this first month of spring? "Facts for Future Flyers" (pages 18–19) presents timely and fascinating material, and we have also a primary airplane unit (page 26), directions for a toy airport (pages 42–43), and a weather unit for middle and upper grades (page 33), all of which correlate with your aviation study.

Practical help in teaching pupils the mechanics of English composition is on page 17, while creative writing is stressed in an article on page 13. Reading and arithmetic form the subject matter of "Teaching the Three R's" (pages 20–23), with a set of charts for teaching the short vowel sounds included. "Wartime Courses of Study," on page 12, offers specific suggestions for adapting social studies in the primary grades, and art in the middle and upper grades, to the war situation. A unit, "Steel and Our Defense," page 26, is likewise of special interest today. Worth-while ideas for improving the emotional adjustment of your pupils appear on page 17. Low-cost scenery for school plays is described on page 53. Color miniatures of "The Storeroom" are to be found on pages 34–35.

Regular features are: "Let's Laugh," page 1; "Why Etiquette?" and "How to Use the Handwork in This Issue," page 4; "The Children's Corner," page 5; "Teachers' Help-One-Another Club," pages 54–55; "The YOU You Can Be," pages 56–57; "Your Counselor Service," pages 58, 60, and 63; and "Treasure-Trove," page 68.

PRIMARY GRADES

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SEASONAL: 24, 25, 28, 36, 51, 55. SAFETY: 32.

AVIATION: 18–19, 26, 42–43. NUTRITION: 6–7, 10–11, 54.

HANDWORK: 4, 36, 37, 38–39, 40, 41, 42–43, 44–45, 54, 55, 60. CREATIVE ACTIVITIES: 4, 5, 12, 14–15, 37, 40, 44–45, 53.

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CHARACTER EDUCATION: 9, 12, 14–15, 28, 32, 37, 47, 48, 51, 54. VISUAL EDUCATION: the cover, 9, 18–19, 25, 26, 32, 34–35, 37, 58.

MIDDLE AND UPPER GRADES

EDUCATION IN WARTIME: pages 12, 26, 30, 31, 37, 49, 50, 52. PATRIOTISM: 9, 24, 25, 46, 47, 49. (See also Aviation and Nutrition.)

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HANDWORK: 4, 36, 37, 38–39, 40, 42–43, 46, 54, 55, 60. CREATIVE ACTIVITIES: 4, 5, 12, 13, 16, 17, 37, 53.

PROGRAM MATERIAL: 47, 49, 50, 51, 52. STORIES: 24, 28, 29.

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TOOL SUBJECTS: arithmetic: 21, 29, 30, 63; language: 5, 13, 17, 31, 51, 55, 60; penmanship: 60; reading: 20, 54, 58.

ART: the cover, 16, 34–35. MUSIC: 47, 49, 58.

SOCIAL STUDIES: the cover, 12, 16, 24, 26, 28, 30, 31, 46, 49, 52, 54, 55, 63. (See Aviation and Nutrition.) SCIENCE: 33, 55, 58. (See Aviation.)

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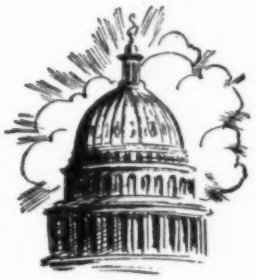

Historic America

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(For each correct answer allow the number of points indicated at each question.)

Who were the Wright Brothers? *(10 Points)*

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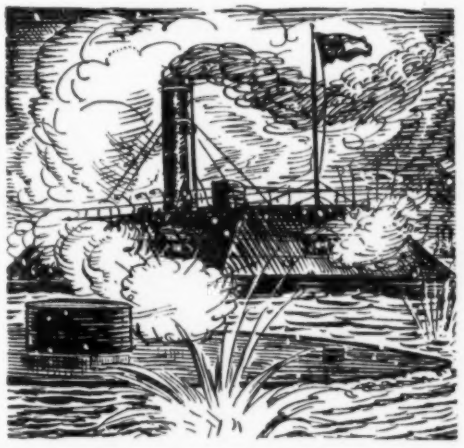
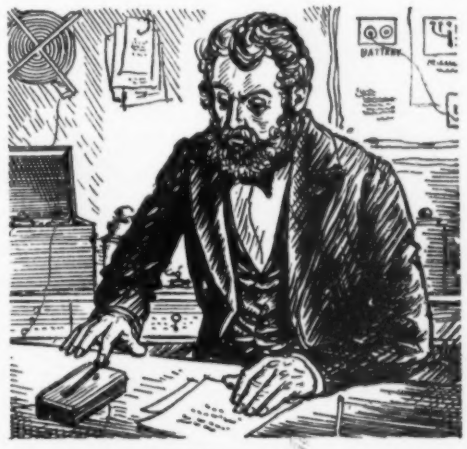


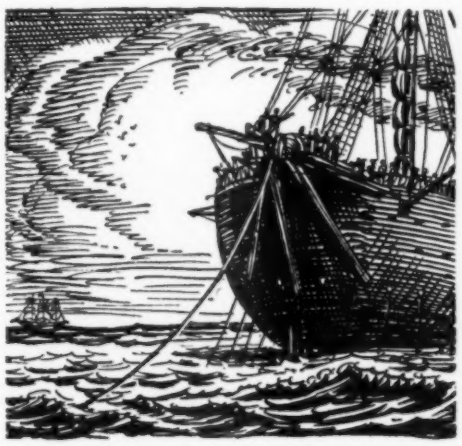
Was the "Monitor" a Warship? *(20 Points)*

Yes. Its battle with the "Merrimac" in 1862 started the era of armored warships. How ideas change! Once brushing teeth was thought sufficient dental care. Now we know we should massage our gums too.



Who invented the telegraph? *(15 Points)*

Samuel F. B. Morse. The first message was sent from Baltimore to Washington in 1844. Morse's invention still contributes to America's progress. So, too, does the work of our teachers in fostering better dental health.



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Why were the Indians so named? *(15 Points)*

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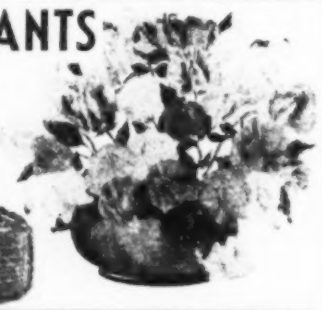

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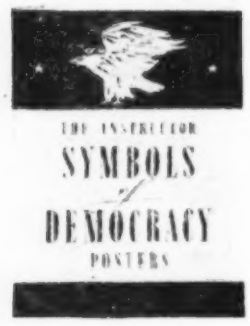
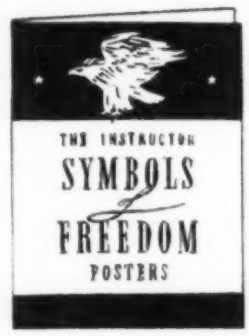


Historic American symbols are pictured in these ten posters, 10" x 13", printed on white bristol in nonmarring ink. Descriptive text and correlations. Price, postpaid: $1.00; $.80 to INSTRUCTOR subscribers.

All about the American flag; illustrated. Price, postpaid: 5 to 11 copies, $.05 each; 12 or more, $.50 a dozen; over 100, $3.75 a hundred.



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WHY ETIQUETTE ?

How to Develop Good Manners in Grades 5-8

Do you teach etiquette in any grade from five to eight? If so, this column, a regular feature on the problems of the ten-to-fourteen-year age group, is for *you*. We should be glad to have you tell us how you are handling problems of etiquette, and what you would like to see included here. Address: Why Etiquette? THE INSTRUCTOR, Editorial Department, Dansville, N.Y.

STUDYING ETIQUETTE

HELEN M. WALTERMIRE

Formerly, Teacher, Chatham No. 5 School, East Chatham, New York

TRY one or all of the following suggestions to add special interest to your study of etiquette.

I. Word study.

1. convention
2. culture
3. courtesy
4. poise
5. personality
6. popularity
7. graciousness
8. refinement
9. sportsmanship
10. self-confidence

II. Prepare a list of courtesies which you will make a special effort to practice during the coming weeks.

III. Add many of the fine quotations about good behavior to your etiquette notebook, for example:

"Manners maketh the man."

"Life is not so short but that there is always time for courtesy."—*Emerson.*

"For manners are not idle, but the fruit
Of loyal nature and of noble mind."
—*Tennyson.*

IV. Dramatize a scene in which you may demonstrate correct walking, sitting, closing the door, and introducing your friends.

V. Make a bibliography of books on courtesy that are available in your library. Look for the following books.

Barbour, Ralph Henry: *Good Manners for Boys* (Appleton-Century).

Dewey, Julia M.: *Lessons in Manners* (Noble).

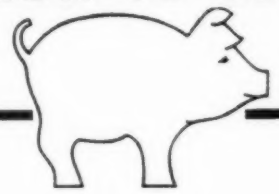
Dunlea, Nancy: *The Courtesy Book* (Beckley-Cardy).

Irwin, Inez Haynes: *Good Manners for Girls* (Appleton-Century).

Skinner, Charles E.: *Good Manners for Young Americans* (Beckley-Cardy).

NEXT MONTH: Another article which will help you plan a study of good manners for your class.

HOW TO USE THE HANDWORK IN THIS ISSUE



JESSIE TODD

Supervisor of Art, University Elementary School, University of Chicago

Page 36 THIS simple line drawing of a pig will help children draw animals to illustrate stories of farm life. It will guide them in modeling a pig of clay, for the legs are thick.

Page 37 CHILDREN like to draw objects and print names under them; for example, "These are the things I got for my birthday." They learn to spell when they do this. If your school collects certain things on a definite day each week, make posters to that effect. One could read "Remember to bring your tin cans on Tuesday."

Pages 38-39 DOLLS like these will be wonderful for upper-grade pupils to make in summer camps or to send to children's hospitals. The face of the clown on page 39 will inspire children to draw original pictures of clowns, perhaps making them tumble around. It is an excellent problem for action drawing and for original color and design.

Page 40 THE cardboard pig and giraffe will inspire the children to invent other animals—small ones for party favors, and large ones for each side of a stage to fit in with a play that is being acted. For a school circus, older pupils may get ideas from this page for creating a variety of animals.

Page 41 THIS page suggests other things that children can make for their own rooms. Some may design footstools to go with the chairs. Others will build bookshelves out of pieces of wood. They can model and paint clay figures to stand on the shelves.

Pages 42-43 ONE of the biggest values of a problem like this is that it leads children to read more about airports and airplanes. As they construct, their interest grows. Each thing a child learns to construct helps him to build the next one better, and serves as a model to work out other ideas.

Pages 44-45 IF CHILDREN are to learn to draw as well as they learn other school subjects, you must teach drawing so that the majority can succeed. Show the children how to draw many animals in many positions. This helps them to develop originality.

Page 46 CHILDREN are enthusiastic about drawing and painting Uncle Sam. The words on this page may be cut into individual letters (after the poster has been used) to serve as illustrative material when children want an alphabet of printing to guide them.

BIRD PICTURES

IN NATURAL COLORS

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The finest and only authentic collection. Makes school work easier for teachers, more fascinating for pupils., 1500 subjects, 374 actual photographs in natural colors, 7x9 inches, of birds, flowers, animals. Special selection of 23 bird pictures $1.00. Progressive views 6 x 8 inches of leading American industries, Copper, Coal, Lumber, Rubber, Cotton, etc. Send for Catalog with Prices.

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- ☐ Spring Packet
- ☐ Spring Baskets
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FREE CATALOG

THE CHILDREN'S CORNER

THIS department is devoted to verse written by children. *Send only verse that each child composes in class as an assignment, or verse written by the class as a whole. Assignments should not be given out in advance.* Contributions must be sent by the teacher with a letter from her giving the name and address of the school and the name and grade of the child. The letter should also state the conditions under which the verse was written. Use a *separate sheet* for each verse, which should bear the child's name and school, and the teacher's name. Address contributions to:

The Children's Corner
THE INSTRUCTOR, Dansville, N.Y.

STARS

Away up high in the sky,
Where the clouds fly by,
Are tiny little stars.
They sparkle and gleam,
Like diamonds they seem.
Do you like the stars as well as I?

WAYNE SINGLETON, *2nd Grade*
Riverview School, Prosser, Wash.
ELSIE URK, *Teacher*

THE BIRDS

Whenever I look out to the fields,
What do you think I see?
I see a little bluebird
Nesting up in a tree.

Whenever I go out in the spring,
I hear a little robin sing.
He's as happy as he can be
Because he sings to me.

Whenever I go out in the fall,
I hear the little house wren call.
Upon a little house so near
She sits and spreads her willing cheer.

And last of all when winter comes,
Very few birds will stay;
The rest go south at once
And don't return till May.

JAMES DRESCHER, *4th Grade*
Bates Rural School, Palmyra, Mo.
WILMA S. ELLIS, *Teacher*

SPRINGTIME IN THE COUNTRY

Springtime is here, springtime is here,
Those wonderful words at last I hear.
The flowers are blooming, the birds are singing,
It seems as if I hear bells ringing.
The air is filled with a sweet perfume,
The spiders are weaving a new loom
The children are happy as they can be,
Laughing and playing so merrily.

JEAN ANN POWERS, *5th Grade*
Emily Howland Central School, Scipio Center, N.Y.
FLORENCE ANDREWS, *Teacher*

ELM TREES IN THE BREEZE

Swinging, swaying in the breeze
Are the slender elm trees;
Back and forth and bowing low,
Any way the wind may blow.

JOYCE RICHMOND, *6th Grade*
H. P. Hamilton School, Two Rivers, Wis.
ELSA ROLLER, *Teacher*

Announcing . . .

6 NEW REGIONAL GEOGRAPHY FILMS

depicting contemporary life in the 6 major regions of the United States and presenting **the concept of our country as a group of interrelated regions rather than as many political divisions or states.**

These films illustrate aspects of the geography, economy, history, resources and culture characteristic of each region. The series emphasizes the individuality of each region yet shows the contribution of each to the nation's total economy.

These films are effective teaching aids in the study of geography, economics and the other social studies.

Booklet and details on request.

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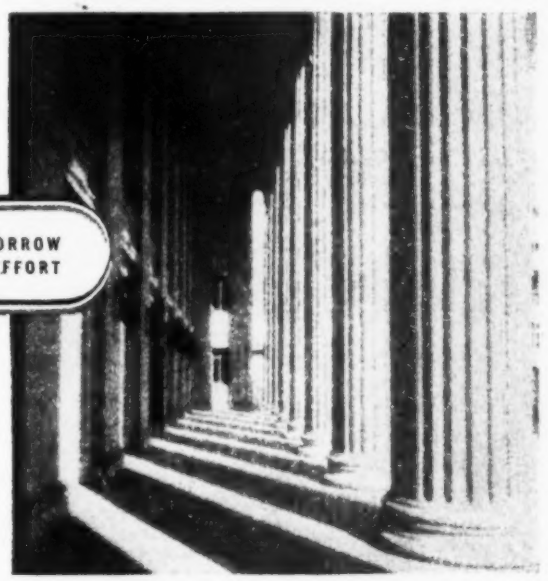

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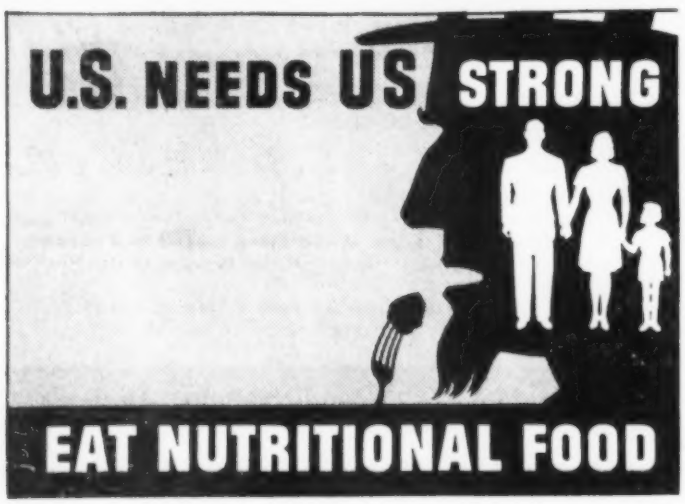
First term registration Monday and Tuesday, June 14, 15.
Second term registration Monday, July 26.

UNIVERSITY OF MINNESOTA
Minneapolis, Minnesota

America must be strong. To face the present crisis, to conserve our national strength, every man, woman, and child in our country must know and eat the right foods. THE INSTRUCTOR can make an important contribution to this educational effort through its teacher readers who reach hundreds of thousands of school children in all parts of the country. I hope that every teacher who reads these pages will do her part in THE INSTRUCTOR's Nutrition Program. Remember—U.S. Needs US Strong!



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$200 in War Bonds Offered

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THE INSTRUCTOR'S
Nutrition - in - the - Classroom CONTEST

ENTER TODAY

YOUR ARTICLE SHOULD TELL US
- Your Plans for a Nutrition Program
- The Results You Obtain

Make use of the teaching tools listed on the opposite page, as well as our nutrition department, conducted by Miss Evelyn M. Herrington.

THE CONTEST RULES

1. Your article must not exceed 2500 words in length. It should be typewritten, double-spaced, on plain white paper, 8½" x 11".
2. Attach to it a sealed envelope containing this information: your name and address, name and address of school, grade or grades you teach, and signature of your principal or superintendent.
3. All manuscripts must be postmarked not later than May 1, 1943, and sent first-class mail, fully prepaid. Address: Nutrition Contest, THE INSTRUCTOR, Dansville, N.Y.
4. The Contest will be judged by Editors of THE INSTRUCTOR, and Miss Evelyn M. Herrington, Professor of Home Economics Education at Syracuse University, Syracuse, New York.
5. Prize winners will be announced in the September 1943 issue of THE INSTRUCTOR.

THE PRIZES

FIRST PRIZE: $100 War Bond (Article will appear in the September 1943 issue of THE INSTRUCTOR).
SECOND PRIZE: $50 War Bond (Article will appear in a later issue of THE INSTRUCTOR).
THIRD PRIZE: $25 War Bond.
FOURTH PRIZE: $5 War Stamp.
FIFTH PRIZE: $5 War Stamp.
SIXTH PRIZE: $5 War Stamp.
SEVENTH PRIZE: $5 War Stamp.
EIGHTH PRIZE: $5 War Stamp.

THE INSTRUCTOR Magazine
Editorial Department
Dansville, N.Y

Mar 43

I have signed and posted in my classroom THE INSTRUCTOR's Pledge of Co-operation in the National Nutrition Drive.

Send me the nutrition materials indicated on the enclosed slips. (Mail with this coupon a separate slip of paper, 3" x 5", for each item desired. On the slip write number of the item you want, your name, address, school, and teaching position.)

NAME.....

ST. OR R.D.....

P.O.....STATE.....

SCHOOL.....GRADE.....NO. OF PUPILS.....

—ENROLL TODAY IN THE NUTRITION DRIVE

THE INSTRUCTOR'S

★ *Pledge of Co-operation* ★

IN THE

NATIONAL NUTRITION DRIVE

I, _____, hereby promise to support the National Nutrition Program of the Office of Defense Health and Welfare Services in the _____ grade of _____ School in _____, _____. I promise to learn more about nutrition and help my pupils develop better eating habits. By so doing, I am co-operating in the defense of the home, the school, the community, and the nation.

SIGNATURE OF TEACHER

SIGNATURE OF PRINCIPAL OR COUNTY SUPERINTENDENT

45 Tools with Which to Fashion Better Food Habits in America's Youth

Ready and free of charge. One to a teacher, unless otherwise noted.

Have You Ordered These Items?

They Were First Listed in September

1. **Growing Up with Milk.** Carnation Company.
2. **Concise Facts about Homogenized Vitamin "D" Milk.** Wisconsin Alumni Research Foundation.
3. **The Romance of Cheese.** Kraft Cheese Company.
4. **Feeding a Family at Low Cost.** Evaporated Milk Association.
5. **Plan before You Eat** (chart). Borden Company.
8. **Manual of Foods . . . Composition and Value.** H. J. Heinz Company.
11. **Nutrition Study Kit.** General Mills, Inc.
12. **Blackboard Lessons on Food.** Wheat Flour Institute.
13. **Fightin' Food.** One free copy to a teacher. 20 or more, for pupils, 5 cents each. Pillsbury Flour Mills Co.
14. **Health from Day to Day** (chart). One for each pupil. Kellogg Company.
16. **Vitamin Food Chart.** Cream of Wheat Corporation.
17. **Reprints and Home Economics Material.** National Biscuit Company.
20. **Eat the Right Foods** (balanced-diet poster). American Meat Institute.
21. **Hunches for Nutritious Lunches.** One for each pupil. Libby, McNeill & Libby.
24. **Sugar-less Desserts and Salads.** Knox Gelatine Co.
25. **Fleischmann's Yeast Kit.** Standard Brands.

Your requests for material listed in "Treasure-Trove," page 68, can be mailed to us with your requests for nutrition materials.

USE THE COUPON OPPOSITE

28. **Help Make America Strong.** American Can Co.
29. **How to Get the Most Out of the Food You Buy.** General Electric Company.
30. **U.S. Needs US Strong** (posters and leaflets). One for every child. National Association of Grocers and Manufacturers.
34. **Food for Growth. Food for Freedom Series.** U.S. Department of Agriculture.
36. **The Noon Meal at School.** Free to schools. Children's Bureau, U.S. Department of Labor.
37. **School Lunches in Country and City.** U.S. Bureau of Agricultural Economics.
38. **School Lunches Using Farm Surpluses.** U.S. Department of Agriculture.
41. **The Road to Good Nutrition.** Children's Bureau, U.S. Department of Labor.
42. **The Food We Live By.** Nutrition Division, U.S. Office of Defense Health and Welfare Services.

These Items Were First Listed in October

O23. **The ABC's of Eating for Health.** Desk copy free. Additional copies for distribution to pupils, 1½ cents each. Westinghouse Electric & Manufacturing Co.
O43. **Vitamins in Food.** Kellogg Company.
O44. **Feeding the Child for Health.** California Fruit Growers Exchange.
O45. **An Investigation and Report of the Nutritive and Health Value of Dari-Rich Chocolate Flavored Drink.** Bowey's Inc.

These Items Were First Listed in November

N19. **Behind the Scenes at America's Meat Headquarters.** Swift & Company.
N26. **The Romance of Prairie Gold.** Corn Products Refining Company.
N46. **School Lunches—Quantity Recipes Using Evaporated Milk.** Evaporated Milk Association.
N48. **Peanuts—Their Food Value and Interesting Recipes.** National Peanut Council.

These Items Were First Listed in December

D18. **Defense of Health with Economy Meats.** Armour and Company.
D19. **Meatless Main Dishes and Leftover Hints.** Knox Gelatine Co.
D50. **Eat Right to Work and Win.** One for each teacher and pupil. Swift & Company.

These Items Were First Listed in January

J27. **Nutrition Poster—How to Save Vitamins.** Metropolitan Life Insurance Company.
J51. **Molasses—What It Is.** American Molasses Company.
J52. **Fatigue versus Efficiency.** Association of Bottlers of Carbonated Beverages.
J53. **Democracy Means All of Us.** Nutrition Division, U.S. Office of Defense Health and Welfare Services.

These Items Were First Listed in February

F15. **Oatmeal Recipes—Seven Ways to Make Meat Go Farther.** Quaker Oats Company.
F54. **Fighting Foods.** One for each pupil. National Confectioners Association.
F55. **Nutrition Charts,** showing contribution of candy bars to the diet. Mars, Inc.

You Will Want These New Items, Too

M56. **Food for Freedom.** Single copies only. Armour and Company.
M57. **How to Divide the Food Budget** (colored wall chart). National Dairy Products Corp.

This is part of a series on matters of professional, educational and public interest, primarily related to nutrition and the scientific approach to the food problem, and giving the background of the products of General Mills. These messages are being disseminated through a number of professional and specialized publications . . . in the hope of providing material useful for the readers.

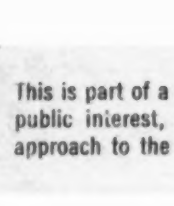
The Council on Foods

OF THE AMERICAN MEDICAL ASSOCIATION

HOW MUCH DO YOU KNOW ABOUT THIS IMPORTANT BODY? THE WORK THEY HAVE DONE AND ARE DOING HAS HELPED RAISE STANDARDS OF FOOD FORMULATION, MANUFACTURE, LABELING AND ADVERTISING . . . AND ENCOURAGED GREATER PUBLIC DISCRIMINATION IN THE SELECTION OF FOODS

1. *Why was the Council started?*

(*Answer*) It was decided, in 1930, by the American Medical Association that a committee was needed to pass judgment on the acceptability of food products submitted for advertising in the association's own Journal, and to pass on the claims such advertising contained. The board set up at that time has since come to be known as the Council on Foods and Nutrition of the American Medical Association. But the scope of its work and influence has broadened greatly since 1930.



2. *How has its work broadened?*

(*Answer*) It was soon seen that the type of work this committee had undertaken was potentially of great public usefulness. For, as scientific knowledge of nutrition grew by leaps and bounds, more and more food advertising made use of nutritional claims. Many of these claims were exaggerated, based on insufficient data, loosely conceived and presented. The public often found it hard to discriminate. Wouldn't the committee be serving a useful purpose, then, by offering conscientious food manufacturers and advertisers the privilege of submitting their products, processes and advertising claims to the Council for study, review and acceptance? The committee's work was broadened to embrace this larger concept.

Many of the claims in food advertising were extremely "loose"

3. *How is the Council made up?*

(*Answer*) The Council is made up of leading authorities in various fields of medical and nutritional science, all of whom serve without pay. Their work is entirely in the public interest.

4. *What does "acceptance" mean?*

(*Answer*) Many enlightened food manufacturers, distributors and advertisers recognized the value of the service offered by the Council on Foods and availed themselves of it. They realized that this committee—representing as it does the best modern thinking on nutritional subjects—could help the food industry and the public both. The results of their cooperation have borne out this view.

The Council on Foods reviews each product submitted to it; the processes by which it is made; its labeling; its advertising claims—in the light of the best authoritative opinion concerning food and nutritional values and of its published rules for "acceptance."

When the Council "accepts" a product, it permits its Seal of Acceptance to be used on it, and in that product's advertising. Acceptance means that the Council has assured itself that the product is wholesome, that it complies with certain prescribed requirements, and that its labeling and advertising claims are proper and true.

5. *What are the broader functions of the Council?*

(*Answer*) The Council on Foods has helped in many ways to guide the country's nutritional thinking. It has fostered nutritional research — published monographs on nutritional problems of broad public interest—cooperated with entire industries in establishing better standards of composition, processing, labeling and the like. By publishing its "rules" and "decisions"—and enforcing them through withholding its acceptance—it has helped engender a sounder nutritional viewpoint in food manufacture and advertising . . . *The Council on Foods and Nutrition is thus a potent force in helping the American family get wholesome, truthfully advertised foods.*

Lack of Council acceptance of a food product may simply imply that its manufacturer has not chosen to submit it or its advertising to the Council. This implies no lack of merit in the product, or untruthfulness in its advertising.

General Mills, Inc., of Minneapolis, Minn., America's largest processor of basic cereal grains, has cooperated with the Council on Foods of the American Medical Association since its inception . . . as part of this company's policy of collaboration with recognized bodies acting in the public interest. The products illustrated here are all "accepted" by the Council, denoting that their formulation and processing, labeling and advertising have been submitted to review and found acceptable.

GOLD MEDAL "Kitchen-tested" Enriched Flour

WHEATIES

KIX

CHEERIOATS

BISQUICK

Betty Crocker SOFTASILK Cake Flour

"Kitchen-tested" and "Betty Crocker" are reg. trade marks of General Mills, Inc.

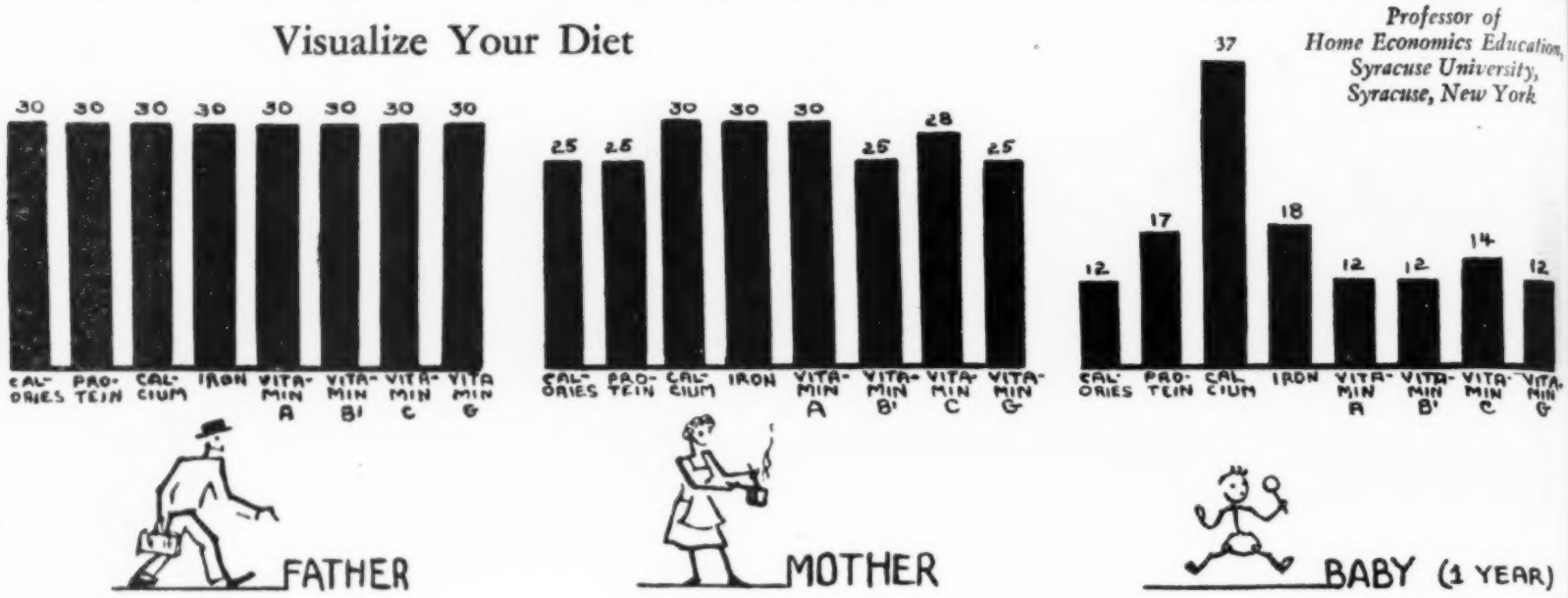
H. Armstrong Roberts

Our Country Calls

FOODS for VICTORY . . . .

EVELYN M. HERRINGTON
Professor of Home Economics Education, Syracuse University, Syracuse, New York

Visualize Your Diet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CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
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CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
FATHER
MOTHER
BABY (1 YEAR)

SUGGESTIONS this month for the school-lunch menu are in terms of meat-extenders. The following recipes are good for the lunch which is prepared at school or for the lunch box packed at home. Slices of the liver loaf and meat loaf make good sandwich fillers and add variety. The baked haddock or kidney and vegetable stew could easily be prepared in the school kitchen. The recipes may be increased to serve any number.

Meat Loaf

1 pound hamburg steak
1 cup uncooked oatmeal
1 medium onion, grated
1 cup milk or 1 cup canned tomatoes
1½ teaspoons salt
⅛ teaspoon pepper

Mix these ingredients together. Form into a loaf. Bake in a warm oven (300°) for 45 minutes. Serves 6 persons.

Kidney and Vegetable Stew

1 pound kidneys
5 potatoes
4 carrots
1 onion
2 tablespoons flour
1 tablespoon fat
1½ teaspoons salt
½ teaspoon paprika
⅛ teaspoon pepper

Wash kidneys in cold water, remove skin, soak in cold salted water overnight. Drain, cut into pieces, and remove sinew. Cover with cold salted water and bring to a boil. Cook at a low temperature until tender. Peel or scrape vegetables, cut into quarters. When kidneys begin to get tender add vegetables. Thicken liquid with flour and fat. Add seasonings. Serves 6 persons.

Liver Loaf

1½ pounds liver
1 egg
1 cup milk
1½ cups soft bread crumbs
½ cup canned tomatoes
½ green pepper
1 tablespoon onion juice
2 tablespoons fat
1¼ teaspoons salt
⅛ teaspoon pepper

Grind liver with coarse grinder. Beat egg slightly, and add milk and bread crumbs. Add tomato, green pepper, and onion juice to liver. Fold in egg and bread mixture. Add remaining ingredients. Pour in greased baking dish. Bake for 50 minutes in a warm oven (300°). Slice and serve either hot or cold. Catsup or chili sauce may be used if desired. Serves 6 persons. This loaf makes excellent sandwiches.

Stuffed Baked Haddock (or other white fish)

1 teaspoon poultry seasoning
1 teaspoon salt
1 teaspoon celery salt
⅛ teaspoon pepper
juice of half a medium-sized onion
2 tablespoons fat
½ cup hot water
3 pounds fish
6 slices bread

Mix the dry seasonings together. Add onion juice and fat to hot water. In a greased baking dish place alternate layers of fish and bread. Sprinkle with seasonings. Pour liquid over fish layers. Bake in a moderate oven (350°) for 50 minutes. Serves 10 persons.

This month we shall study vitamin A and calcium. Our plan is to present the necessary facts about them, knowledge of which is essential to the good health of the average person; to use pupil-made visual aids in our teaching; and to use tests to determine how well the children comprehend what has been studied.

Visualizing the contributions which new dishes make to our diet often enables us to accept more willingly combinations of food to which we have not been accustomed. By means of the charts below, study the contributions to the diet of the foods used in this month's recipes, as well as of milk and orange juice.

MAKING A NUTRITION GRAPH

Daily dietary needs of the average man weighing 154 pounds.

Materials needed: a sheet of squared paper 8½" x 11". A pencil, a ruler, and a box of colored crayons.

Directions: On the sheet of squared paper, count up 6 squares from the bottom and draw a line with your black pencil across the paper. This is your base line.

Count up 30 squares from the base line and draw a second line across the paper, parallel to the base line.

Three squares from the left side of the paper, draw a line connecting the base line and the top line.

Four squares from the left side of the paper draw a second line, which will complete an oblong that is 30 squares long and 1 square wide. Color this column brown. On the first line below the brown column, print in the square the abbreviation *Cal.*, which designates these 30 squares as calorie units. [In the charts reproduced here the labels were spelled out for clarity.]

On the base line, skip one square from the brown column and erect a second column which is 30 squares high and 1 square wide. Color this orange, and under it print *Pro.*, which stands for protein.

Skip another line and erect a third column 30 squares high and 1 square wide. Color this column blue and under it print *Ca*, which is the chemical symbol for calcium.

Skip another line and erect a fourth column, color it red, and print *Fe* under it, which is the chemical symbol for iron.

Erect another column, color it white, and print under it *A*, which stands for vitamin A.

Erect a sixth column, color it black and print under it *B*, showing that these are vitamin B units.

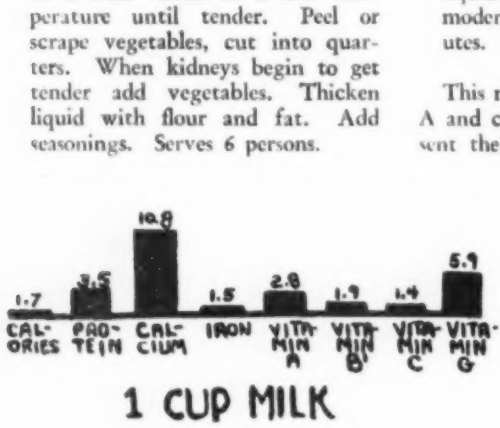
Erect a seventh column, color it purple, and print *C* under it, showing that these are vitamin C units.

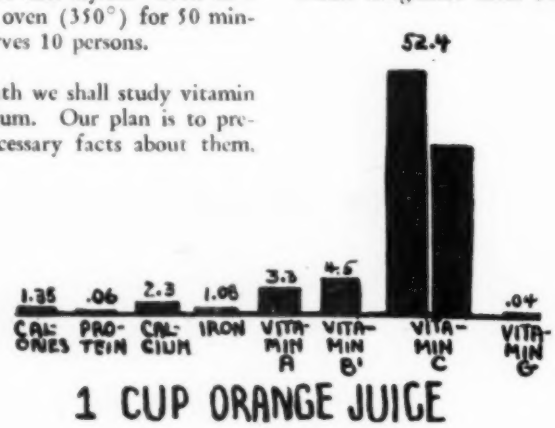
Erect an eighth column, color it yellow, and print *G* under it to show that these are vitamin G units.

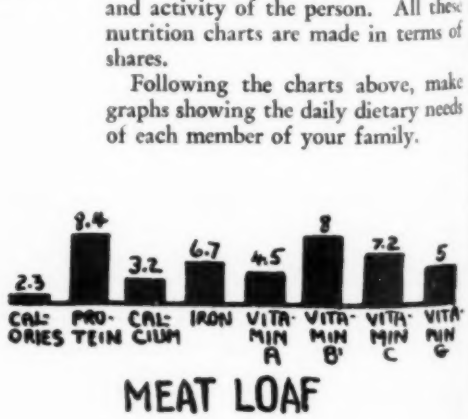
Each column represents 30 units (shares) of a food essential.

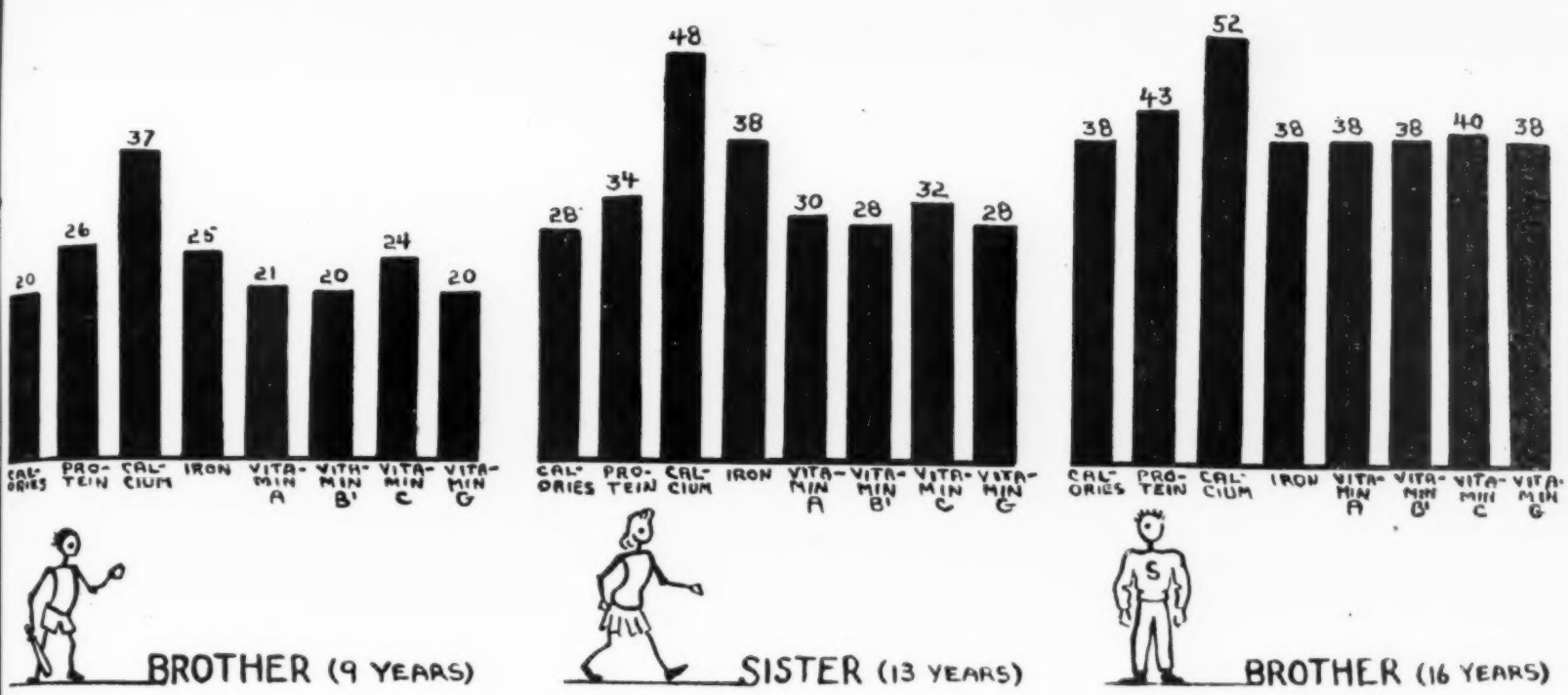
This diagram shows in shares the dietary essentials for the Average Man weighing 154 pounds and requiring 3,000 calories every day. *Share* is a unit used by nutritionists to represent 1/30 of the Average Man's daily requirement of any nutrient. The number of shares that a person needs varies according to the age, size, and activity of the person. All these nutrition charts are made in terms of shares.

Following the charts above, make graphs showing the daily dietary needs of each member of your family.








20 26 37 25 21 20 24 20
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
BROTHER (9 YEARS)
28 34 48 38 30 28 32 28
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
SISTER (13 YEARS)
38 43 52 38 38 38 40 38
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
BROTHER (16 YEARS)

Contributions of a cup (½ pint) of milk.

On another sheet of graph paper, erect columns to represent the contributions which one cup of milk makes to the day's total requirement of nutrients.

One cup of milk contains:
Calories—170, or 1.7 shares
Protein—3.5 shares
Calcium—10.8 shares
Iron—1.5 shares
Vitamin A—2.8 shares
Vitamin B—1.9 shares
Vitamin C—1.4 shares
Vitamin G—5.9 shares

Label each column of your graph. Make similar graphs for other foods.

FACTS ABOUT CALCIUM

To keep healthy, people of all ages need calcium.

Ca is the chemical symbol for calcium.

Two *dependable* sources of calcium are milk and cheese.

We need calcium every day, because the body does not store it.

In the United States people lack calcium more than they do any other mineral.

In the United States, however, we produce enough milk to supply each person with a *pint* every day.

Much of our milk is made into cheese.

Our armed forces eat much cheese.

We send a great deal of cheese to other nations at war.

Many green, leafy vegetables are good sources of calcium.

We generally do not eat enough green, leafy vegetables.

We need calcium to build strong bones, help blood to coagulate, help muscles to contract, and help nerves to carry messages.

Growing girls and boys need extra calcium for bone growth.

Growing girls and boys need extra calcium to develop their muscles.

Milk is the best source of calcium.

One quart of milk each day provides an adequate supply of calcium for growing girls and boys.

If less than one quart a day is drunk, then children must eat plenty of cheese, whole grains (in bread and cereal), and green vegetables.

Foods rich in calcium are:

Vegetable	*Animal*
Dark breads	Milk
Beans, especially soy beans	Cheese
Whole grain cereals	Eggs
Carrots, turnips	
Green, leafy vegetables	
Oranges	

Tests on Calcium

I. *If the statement is true, write* T *after it; if it is False, write* F *after it.*

1. People of all ages need calcium.
2. Children who lack calcium may be shorter in height when they grow up than children who have calcium.
3. Calcium is found in animal and vegetable foods.
4. Milk is essential for babies but not for older girls and boys.
5. Cheese is a poor source of calcium.
6. We are sharing our calcium foods with other nations at war.
7. Bleeding from an injury may be prolonged if the body lacks calcium.
8. Nerves are nourished by calcium, as are bones.
9. Some foods rich in calcium are also rich in protein.
10. Some foods rich in vitamin A are also rich in calcium.
11. Some foods containing captured vitamin D are rich in calcium.
12. No food is rich in all of these: Vitamins A and D, calcium, and protein.
13. It is possible to store a supply of calcium in the body.
14. Cheese is a good substitute for milk as a source of calcium.
15. Children need not drink as much milk as their parents.
16. Since our soldiers and sailors are no longer growing, they do not need foods rich in calcium.
17. Adults need milk or cheese to help their muscles to contract.

II. *Choose the word or group of words in each parenthesis that makes the sentence true.*

1. The greatest amount of calcium is needed every day by (a baby, an elderly person, a seventh-grade boy, a high-school boy).
2. A person needs calcium (once a day, more than once a day, once a week, only during winter months).
3. Foods which are good sources of calcium (are expensive, take a long time to prepare, are available in our community, are liked by few people).
4. All people require calcium-rich foods for (strong bones, better vision, good complexion, glossy hair).
5. The one food that contains vitamins A and D, protein, and calcium is (beef, oranges, whole-grain bread, irradiated milk).

III. *Fill each blank with the word or words which will complete the statement correctly.*

1. Babies must receive their calcium from _____.
2. Liquid diets usually provide calcium in _____ drinks.
3. Excepting tiny babies, everyone should be provided with calcium from _____ and _____ foods.
4. The calcium-rich foods which are sent overseas are _____ and _____.

FACTS ABOUT VITAMIN A

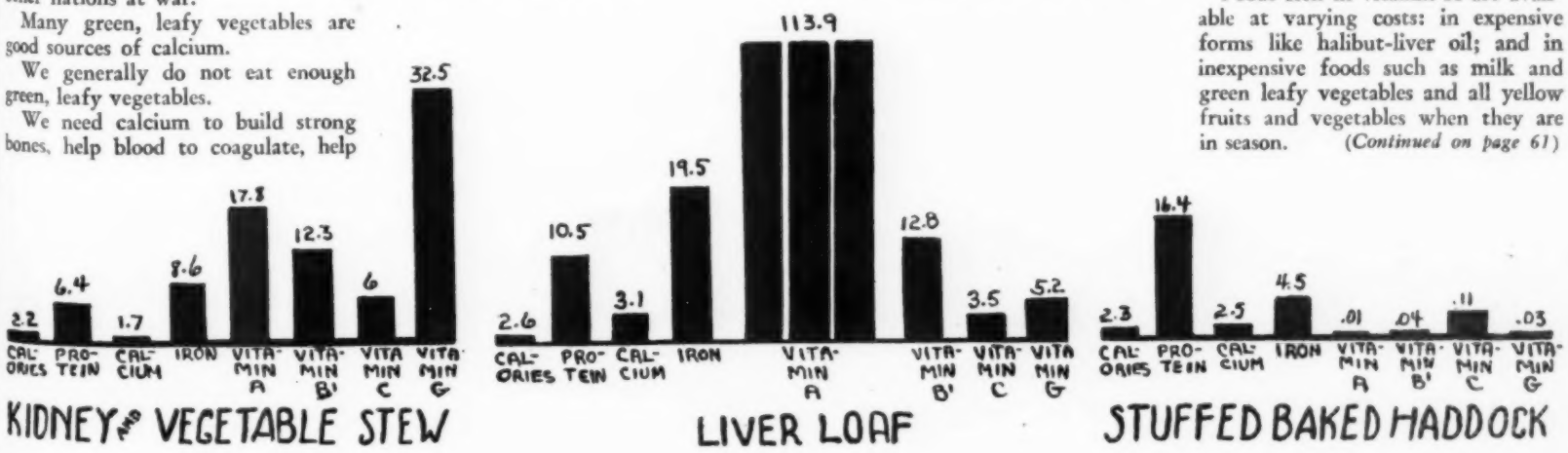
To keep healthy, people of all ages need vitamin A.

The United States produces an abundant supply of vitamin A.

Vitamin A is found in varying amounts in fruits and vegetables, and in more widely varying amounts in animal foods.

Vitamin A is needed by men in the army and navy to build up their resistance to disease and infection, ensure normal growth and development, ensure physical vigor, and maintain normal vision. All of us need vitamin A for these same reasons.

Foods rich in vitamin A are available at varying costs: in expensive forms like halibut-liver oil; and in inexpensive foods such as milk and green leafy vegetables and all yellow fruits and vegetables when they are in season. (*Continued on page 61*)


2.2 6.4 1.7 8.6 17.8 12.3 6 32.5
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
KIDNEY & VEGETABLE STEW
2.6 10.5 3.1 19.5 113.9 12.8 3.5 5.2
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
LIVER LOAF
2.3 16.4 2.5 4.5 .01 .04 .11 .03
CAL-ORIES PRO-TEIN CAL-CIUM IRON VITA-MIN A VITA-MIN B' VITA-MIN C VITA-MIN G
STUFFED BAKED HADDOCK

Wartime Courses of Study

M. FLAVIA TAYLOR

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Have you wondered whether to substitute war-centered lessons for the usual schoolwork in your curriculum? Here are excellent suggestions for integrating the two.

SOME schools feel that any changes to include wartime activities in their carefully constructed study programs would produce undesirable educational results. Without proper presentation, such program alterations, they fear, might bring about hatred, hysteria, or false patriotism in young girls and boys. In other schools, however, an adequate wartime educational program is being carried on which is well integrated with the existing program. The children's increased interest and enthusiasm ensure their being better informed in the geographical and historical aspects of their social studies, more eager to read and to express opinions, more original in creative fields, and more capable, physically and mentally, of facing war crises. An outline of such a program is presented here.

SOCIAL STUDIES

The aims in correlating wartime problems with the regular schoolwork of the primary grades are: to encourage each child to do his part in the war effort; to enable the children to discuss what is going on in the world today; to give the pupils a clear realization of what it means to be an American; and to develop strong, healthy, alert pupils who will be able to meet war problems without confusion, fear, or bewilderment.

GRADE I OR II

The social-studies discussion period is a logical time for presenting to first- or second-grade children ways in which they may help in the war effort. The following suggestions are listed according to the units in which they may be used.

A. The home.

1. Identification of one's self—full name, address, parents' full names.
2. Co-operation.
   a) Help with work so parents will have time for wartime duties.
   b) Be obedient to parents and other grownups so that they will be able to carry on extra duties effectively.
3. Thrift.
   a) Take care of your clothing.
   b) Take care of furniture and other equipment—especially things which are irreplaceable because of the war.
   c) Buy War Stamps and War Bonds.

B. Pets in the war.

1. How pet dogs are obtained for war work.
2. The work for which they are trained.

C. Health.

1. Food.
   a) Be on time for meals.
   b) Eat the foods that you know are good for you. Drink milk.
   c) Conservation of food.
      (1) Do not make your parents unhappy by asking repeatedly for foods which are scarce or expensive.
      (2) Take only as much as you will be sure to eat.
2. Rest and sleep.
   a) Rest after strenuous exercise.
   b) Sleep at least ten hours each night.
3. Play and exercise.
   a) Play outdoors each day.
   b) Wear suitable clothing.

D. Safety.

1. Cross streets carefully. (Accidental injuries cause worry and unnecessary expenditures.)
2. Play in safe places.
3. Keep toys in proper place to avoid accidents during blackouts.

E. School.

1. Take care of school supplies.
   a) This will save money.
   b) They may be hard to replace.
2. Co-operate.
   a) Help one another.
   b) Obey persons in authority.
   c) Take part in school campaigns.
3. Engage in patriotic activities.
   a) Learn the pledge to the flag.
   b) Learn how to show respect for the flag.
   c) Learn to sing "America."
   d) Read patriotic books, for example: *War-time Handbook for Young Americans*, by Munro Leaf (Stokes), and *We Love America*, by Josephine Van Dolzen Pease (Rand McNally).

GRADE II OR III

Through discussions and activities in their social-studies and language classes the pupils will acquire a better understanding of the war as it affects them and will grow in their ability to discuss such matters. They will also learn in what ways they can help.

A. Language.

1. Discuss proper wartime attitudes: co-operation, responsibility, and so on.
2. Observe the rules of courtesy in the classroom and outside.
3. Discuss the rules of safety.
4. Write letters to parents, giving information on salvage drives.
5. Give oral news reports.
6. Relate news heard over the radio.
7. Discuss the rules to obey during an air-raid drill. List them.
8. Practice giving one's home address and telephone number.
9. Write a short letter to a relative in the service.
10. Discuss and demonstrate simple first-aid treatments.

B. Social studies.

1. Community helpers.
   a) Air-raid wardens.
   b) Junior Commandos.
   c) Workers in war industries.
   d) Doctors and nurses (problem resulting from their enlistment).
2. Transportation; communication.
   a) Bring to school, to be posted on the bulletin board, pictures of boats, tanks, airplanes, and so on, and discuss their uses in the war. Later, make a class book of these pictures.
   b) Listen to the radio to hear news from other places.
   c) Discuss the postman and why he is so busy now.
   d) Discuss why we should not make any unnecessary telephone calls.
   e) Discuss community transportation problems.
3. Military details.
   a) Compare methods used by early American colonists in fighting the Indians with present-day warfare.
   b) Find pictures of soldiers in uniforms of former wars and of the present war.
   c) Have an exhibit of toy soldiers and miniature planes.
   d) Draw and color flags of the United Nations.
4. Unit on the United States.
   a) Know the full name of our country.
   b) Know the name of our President.
   c) Know where the President lives.
   d) Know the name of our first President and why we honor his birthday.
   e) Know the date of Lincoln's birthday and why we honor him.
   f) The flag.
      (1) What does the flag stand for?
      (2) How many stars and stripes are in the flag and what do they represent?
      (3) Color hectographed outlines of the flag.

ART ACTIVITIES

GENERAL OBJECTIVES

To enable each child to make an American flag.

To teach each child to express his knowledge of the America we are fighting to preserve, through making paintings of American landscapes and scenes of American life.

To teach each child through poster drawings what we are doing to win the war, which nations are fighting on our side, and which nations we are fighting against.

MAKING OUR FLAG

A. Specific purpose.—To teach pupils the details of the United States flag.

B. Motivation.—Discuss the importance of our flag today—what it stands for, how proud we are of it, and so on—to lead up to a decision to know more about how it is made.

C. Procedure.

1. Have each child draw a U.S. Flag, paying attention to proportions, number of stripes, size of field, and number of stars.
2. Cut the various parts of the flag from colored papers, paste them together to form a flag, and paste this in turn onto heavy cardboard.

LANDSCAPE PAINTING

A. *Specific purpose.*—To lead pupils to be more appreciative of the beauty in the natural and industrial scenes in their locality. (This will help them appreciate their heritage.)

B. Motivation.—Discuss what makes a scene beautiful. Let each child watch for beautiful sky effects, impressive mill scenes, and so on.

C. Procedure.—Each pupil should make a number of landscape paintings based upon his observations.

SCRAP POSTERS

A. Specific purpose.—To keep before the pupils of all the grades the necessity for bringing in the scrap.

B. Motivation.—Talk about the need for scrap, how it is to be used, and which articles are acceptable.

C. Procedure.—As posters for this purpose were needed quickly in our school, we discussed important points in poster-making and then lettered posters with crayon on manila paper.

"WAR AWARENESS" POSTERS

A. Specific purposes.

1. To help the pupils to see why we became involved in this war and to help them formulate some ideas about rebuilding the world after the war.
2. To execute these ideas in poster form so successfully that they will influence other children in the school.

B. Motivation.—Discuss such questions as: "Why are we fighting?" "What kind of world do we want?" "How can we make it better?"

C. Procedure.—Ask the pupils to think out ideas along the themes mentioned and express these ideas in posters, with the aid of some lessons in poster technique. The finished posters may be done in show-card paint on heavy cardboard.

WAR-STAMP POSTERS

A. Specific purpose.—To boost the sale of War Stamps and War Bonds.

B. Motivation.—List the main reasons for buying bonds and stamps.

1. To make a safe investment.
2. To provide the tanks, planes, and guns needed by the armed forces.

C. Procedure.—After having reviewed poster-making techniques, the pupils should plan and make posters.

FIRST ATTEMPTS IN PROSE AND VERSE

FOR MIDDLE AND UPPER GRADES

MARCELLA MASON

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Beginnings always have a touch of excitement about them! First writing is no exception. Watch how children, under wise guidance, will follow the creative impulse to write.

WE WERE gathered in a compact, cozy group at the front of the schoolroom one afternoon before dismissal. I had been reading to the children some poems from *This Singing World,* by Louis Untermeyer.

"Do you know what line I like best?" Edward asked. "It's not in those poems you just read, but it's from something else."

"Why, no," I answered, looking his way in time to see the freckled face and brown eyes emerging from a pensive mood. "What do you mean?"

"It's in an old poem. Remember the line, 'How I wonder what you are.' I suppose I like it because I'm always wondering about everything. I like to watch how people act and I wonder why they do certain things."

George spoke up. "Yes, Edward's always thinking about things like that. On the way home from school yesterday he made me stop with him to watch a mother cat carry her three kittens under a back porch. It was fun watching her take them by the back of the neck and make a separate trip for each one."

That was the beginning. Incidents were told until the bell rang, and the pupils were still telling them as they went out. I knew that there would be more observant eyes on the way home from school, and many happenings ready to slip off eager tongues the next morning.

We usually spent the first ten or fifteen minutes every morning in what we called a sharing period. The following day I suggested that, since our usual sharing period was too short to give every pupil a chance to tell what he had seen, we share our stories with others by writing them. Of course we'd first have to think about what we wanted to say, and then select the best words to tell exactly what we meant and to make the stories interesting. I said that I would write any words on the blackboard which they could suggest and wanted to use. I helped in various capacities, as speller, listener, and most important of all, as an enthusiast about their endeavors.

Some of the stories were read aloud. Miriam read her beginning of "The Hush of the Rain."

Busses, vague and slimy, crept along over the shiny street. A sign reading "Drugs and Soda" flashed on and off. Scurrying figures rushed and darted, trying to avoid the rain. From the street, one felt oppressed, and in a canyon. The black, massive buildings seemed ready to fall on you. A narrow crack of sky was visible. It was a bright reddish purple.

Miriam's paragraph was liked. We went on to others. George criticized Jack's opening sentence, "I have a dog," for not having any pep. He said, "It sounds flat to me."

"What would you suggest instead, George?" I countered.

"Well, I don't know exactly. Maybe I'd say, 'One white ear and one black ear stiffened. A tail wiggled, and by the staring eyes I knew Bep sensed that someone was coming.' I think that would sound better."

Jack said he'd try to think of a new opening sentence now that he had an idea of what was wanted. We tested other beginning sentences to see whether they were inviting enough for us to want to read the whole story.

We agreed with Jean's remark that a good ending is important, and also the title. We asked the pupils who had chosen titles for their stories to write them on the blackboard. We looked them over. Someone disliked "A Radio Program" and "My Brother," but liked "What Was It?" "Voices," and "I Still Don't Know." I asked why we preferred these. We decided that a title was a good one if it made one curious enough to want to read the story. You can guess what happened to most of the titles under discussion!

A drawing on the blackboard called attention to margins and indentations as a guide to form.

We liked writing these stories which we called *paragraphs* or *compositions* or *stories* interchangeably. Children should not be expected to make up plots—that is too complex. They should, rather, spend their efforts in acquiring simplicity, correctness, and interest in what they have to say. Forget not that the important job in written composition in the elementary school is to develop clear sentence structure!

These attempts at writing were successful because the pupils were telling something they *wanted* to say. They really had something to write about, and the writing was done when the content was fresh and uppermost in their minds. It had not gone stale by waiting and then recalling, which happens when it is deferred by "Let's wait until English class this afternoon and write these stories."

From time 'way back, children have been told to write about "My Pet," "Earning Money," and "What I Like to Do." No wonder they have disliked writing and others have not enjoyed reading their efforts! Girls and boys still return from vacations to face the writing of "What I Did on My Holiday." This amounts to little more than an enumeration of facts, made even more tasteless by the monotonous repetition of "and then." Avoid this trite tendency by having each pupil choose what he wishes to write about, keep to a narrowed subject, develop interest, and use an attractive title.

There were several advantages in having the children begin with paragraph writing. They saw the value in choosing meaningful words, and gradually became more word-conscious without the artificial vocabulary development used by many texts and teachers. They found that well-chosen words could add effectiveness.

Overused or weak expressions taken from their own papers were listed on the blackboard. We tried to avoid using these. Pupils began to realize that such words as *very, seem, quite, good,* and many others were inadequate, and should often be omitted or replaced by more exact words. They kept independent lists of interesting expressions to make themselves aware of vocabulary possibilities.

This writing project immediately enlarged the children's powers of observation. They became interested in little things that before had escaped their attention. Another valuable result was that all the children were successful in this type of writing, gained confidence in themselves, and took delight in writing down their experiences.

Our poetry enjoyment came from sharing poems we liked, as "Hiding," by Dorothy Aldis; "Growing-Up," by Marchette Chute; and "Half-way Down," by A. A. Milne. Upper-grade girls and boys mentioned Arthur Guiterman's "Hills," Sara Teasdale's "Barter," John Masefield's "Sea Fever," and Hamlin Garland's "The Mountains Are a Lonely Folk."

It is refreshing to find that children who are acquainted with poetry by Milne, Dorothy Aldis, De la Mare, Laura Richards, Elizabeth Roberts, Noyes, and Masefield do not bring in adult reminiscences such as "The Barefoot Boy," "I Remember, I Remember," "The Children's Hour," and "The Village Blacksmith." They will enjoy more the poetry that has interest for them in their own childhood. It is important to read poetry well in order to convey its humor or beauty, and it is very, very important to really like the poems oneself in order to read them with a fresh expression and genuine feeling.

Bob remarked that it would be fun to get things as the fairy did in "A Fairy Went A-Marketing," by Rose Fyleman. Our comments were like Bob's, *not* analytical. We were free to say what we liked. Sometimes there were requests for the re-reading of a stanza or the whole poem. Poems were popular for what they were about and for rhythmical swing; some had good rhyming and others had none at all.

Several children had already written poems. I picked up one from my desk, saying, "I have a poem which Jane wrote when she was in our room last year that you'll enjoy hearing," and read it to the class.

THE ROCK'S SECRET

What secrets are you hiding,
You great old rock?
Is it a silver mine you cover
Or a long lost passage lock?
Perhaps it is a crock of gold;
Or rubies from some pirate's hold—
Forgotten maps of buried treasure
With darkened crease; or secret measure,
Beneath your surface rough and gray,
Safely sheltered from the light of day.
What is it you're hiding beneath your massive mound?
Your silence keeps your story safe—the answer can't be found.

An important step in encouraging children to write is to read something written by another child who is their own age, or who was their age when the piece was written. It stirs the feeling of possibility within each one.

Subjects to write about were mentioned, such as Jane's rock, a young sister or brother, something funny we'd seen, or perhaps people scuttling here and there in the rain, like the taxis in Rachel Field's poem. With our enthusiasm in the ready-to-write stage, some pencils began to move and others were poised in readiness. Heads rested on hands, propped by elbows. Eyes stared out the window. Hands waved in the air as I moved about to help and comment, and always to encourage. Soon everyone was at it. As some stanzas took shape, even though in rough form, the class paused to hear them, and then went on with their own.

Do not think that there were thirty-eight poems finished in a few minutes, all waiting to be read. Not at all! Janice couldn't think of a word to rhyme with *America,* Harry could not think of a last line, Jo's lacked rhythm, and Virginia didn't like what she had written and wanted to think until tomorrow. And it was a good idea for all to finish later. It tended to free their minds from too much concentration, and later they would be able, independently, to polish and to smooth off sharp edges by taking out this word, substituting that, or adding a new idea entirely. Sometimes they asked help from the class, but more often they worked alone or with my help. When our poems were finished we gathered at the front of the room to hear them read. Some we liked especially well.

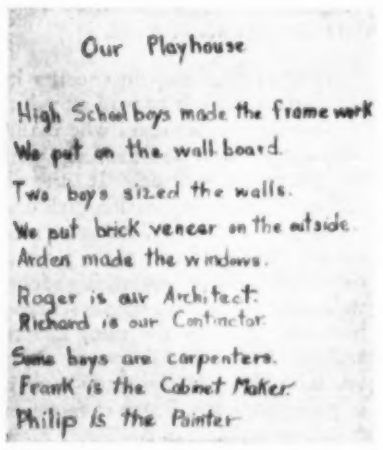
Here is a simple and candid account of beginning writing. There must be many methods of inducing creative expression. Each one of us, with our individual tastes and interests and appreciations, not to mention our different personalities, goes at the thing with varying techniques. Even the same teacher cannot develop her method the same way twice. It cannot be stereotyped; it needs scintillation. Another varying element is important—there are always different children to consider.

It is a good idea not to work on too much at first. Pupils must find pleasure in the result even if you think it could (*Continued on page 66*)

THE PLAYHOUSE—

A playhouse offers an excellent center for educational activities in the first two grades. Notice how many learning situations developed in the unit described here.

A well-planned nursery for our doll Sally was the nucleus of our unit.


Our Playhouse

High School boys made the frame work
We put on the wall board.
Two boys sized the walls.
We put brick veneer on the outside.
Arden made the windows.
Roger is our Architect.
Richard is our Contractor.
Some boys are carpenters.
Frank is the Cabinet Maker.
Philip is the Painter.

We made a reading chart to record many of our playhouse activities.

ANY season is appropriate for developing a unit centered around a playhouse. Our unit grew out of the girls' interest in dolls and the boys' interest in carpentry. From this beginning a highly profitable unit was worked out which lasted nearly three months.

OTHER APPROACHES

In the first grade the children read a story, "The Old, Old Doll."

In art class they learned about primary and secondary colors. They wanted to dye some material to make clothes for a doll.

Our project on pets had aroused the children's interest in homes.

In health class the children learned that one must have food, shelter, and clothing in order to live.

The home-economics teacher sent us a doll. This was wrapped, placed on a table, and labeled "Surprise." When the children opened the package and discovered the doll, they decided to name her Sally, and they began to plan a nursery for her so that she could stay with them.

AIMS

To give the children an ideal picture of home and family life.

To connect more closely life at home and at school.

To stimulate an interest in the home life of others.

To teach that love, kindness, companionship—not a large house or fine furnishings—make a home.

To teach safety in the home.

To promote good social habits in the home and at school.

To learn fundamental facts about the home, such as the use of rooms, heating, lighting, furnishings; pleasures enjoyed there.

To teach that obedience and respect for others help make a happy home.

To instill a realization that parents wisely exercise authority.

To teach good manners at home.

To develop better health habits.

To create a desire to read.

To increase vocabulary.

To teach good working habits.

ACTIVITIES

Making a frieze of homes.

Collecting pictures of rooms.

Making booklets showing the work of each member of the family.

Making scrapbooks of houses.

Bringing in doll furnishings for an exhibit.

Decorating the blackboard with a border of houses and trees.

Building a playhouse of lumber, pasteboard, and crepe paper. This was known as "Sally's Nursery."

Making furniture for the nursery.

Bringing in furniture for a kitchen.

Washing and ironing doll clothes and the playhouse curtains.

Dyeing curtains.

Making a luncheon set.

Painting the woodwork.

Designing wallpaper.

CORRELATIONS

A. Reading.

1. Children read to follow directions.
2. They made outlines to help them tell a story.
3. They skimmed material for definite information.
4. They selected the main ideas.
5. They made up names for various parts of a story.
6. Some used reference material.
7. They found descriptive words.
8. The best readers sought information about homes in other countries.
9. Sometimes we read to determine the order of events.
10. Sometimes we read to predict endings.
11. We often read for fun.
12. The meanings of new words were developed, enriching the vocabulary.
13. For our doll exhibit the children made up stories about their dolls. These were written on charts.
14. Poems and stories of homes were read for appreciation.
15. Progress was recorded on charts, which served as reading materials.
16. Word lists of building materials, tools, names of dolls, and so forth, were kept and the new words were used by the pupils.
17. Both the quality and the quantity of reading improved.
18. After reading "The Surprise for Mother," in Book I, *Elson-Gray Basic Readers*, one class contributed sentences on home activities.

Louise will help do dishes.
Jack can carry wood.
Ethel can dust.

19. The discussion on fathers' work led to a study of "Workers Who Protect Us." (First unit in *Susan's Neighbors at Work*, a second-grade reader.)

B. Seatwork.

1. In first grade, pupils found pictures for the following.

My family.
Father works.
Mother works.
Sister helps Mother.
Brother helps Father.
Baby plays.
This is a living room.
This is a dining room.
This is a kitchen.
This is a bedroom.

2. In second grade, the following lessons in phonics were given from our wall charts.

a) Make a list of all words ending in *e*. If the other vowel says its name, mark it.

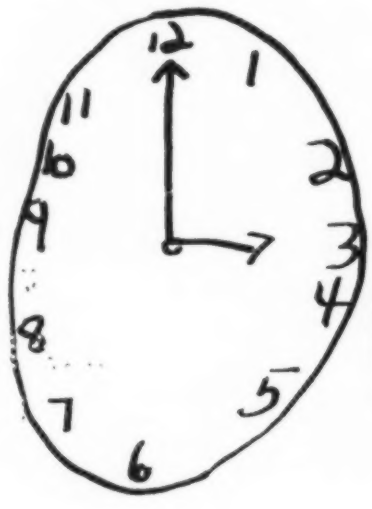
b) List words that contain *ou*.

c) Make a list of big words containing one or more small ones.

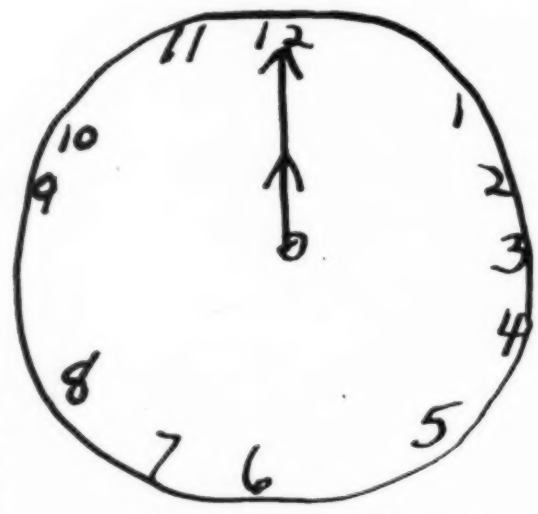
d) Make a list of words beginning with blends such as *bl* and *br*.

e) Make a list of compound words.

Table
chair
plate
Knife
forK
Spoon
cup



Grade I



The children's drawings reproduced here illustrate some of the unit activities. To the left is a list of words the children used in planning their dinner party. The clock-faces show the time they go to school and return home. The drawings on the next page show types of homes that the children studied.

A PRIMARY UNIT

CHARLOTTE N. CLAXTON

Teacher, First and Second Grades, Consolidated Springville Township School, Springville, Pennsylvania

C. Spelling and language.

1. The following sentences were copied and the "stop signs" were added.

Do you like our house
How many windows does it have
We do not have a door
Our doll is called Sally
Do you want to make a kitchen
Can you find the chisel
The ruler is 15 inches long
Have you played in the house

2. Spelling lessons were chosen from *On Our Way*, by Betts and Arey.
3. Part I of *Myself and My Home* ("Daily Life Language Series") introduced the capital *I*, writing names of rhymes and songs, using *is* and *are*, contractions, names of months, and names of friends.
4. Pupils looked up definitions.
5. They told stories from outlines.
6. The relationship between oral and written language was taught by means of pictures and charts.
7. Conversations developed more interest in home life.
8. We needed a yardstick. The pupil sent to borrow one was chosen because he knew how to ask politely.
9. Children selected words from a given list describing a house, and then words describing a home.
10. We selected titles for pictures.
11. The use of the apostrophe was learned in connection with the making of these signs.

This is Lincoln's Home.
This is Washington's Home.
This is Our President's Home.

12. Children made up rhymes.

We made a house
But not for a mouse.

Our house is brick,
The walls are thick.

We papered the room,
Then swept with the broom.

13. A dinner party was planned.
14. Polite remarks to use at the party were listed, as: "If you please," "Pardon me," "No, thank you."
15. The children brought in their favorite recipes and we made a cookbook for our kitchen.
16. The children planned a party for their mothers. The program included songs, stories, poems, a rhythm-band number, introduction of helpers, display of reading charts, a little play, an explanation of "How We Help to Make a Home," and other selections. Cookies and milk were served.

D. Writing.

1. To practice making capital letters, the children wrote their dolls' names.
2. The second-grade children wrote letters to mothers about our party.
3. Each child copied the menu.
4. Names were written on place cards.
5. Polite phrases were written on the blackboard and copied.
6. Invitations were written to the mothers for the party.
7. The children gave a list of songs they could sing to younger children. This was written on the blackboard and copied for practice in writing.

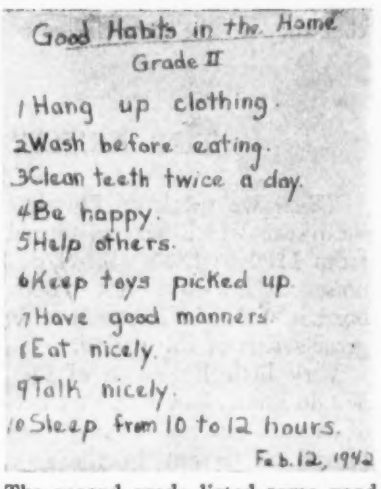
E. Arithmetic.

1. "How big shall our house be?" required the use of yardstick and ruler.
2. The tallest child in the room is 4 feet tall. Our house had to be higher, so we made it 5 feet high.
3. A lesson in counting by 2's came from making two pasteboard frames for each window.
4. Each window in our house is 10 inches by 15 inches. The carpenter measured to make the windows even.
5. Sentences relating to comparison of measurements were made up.

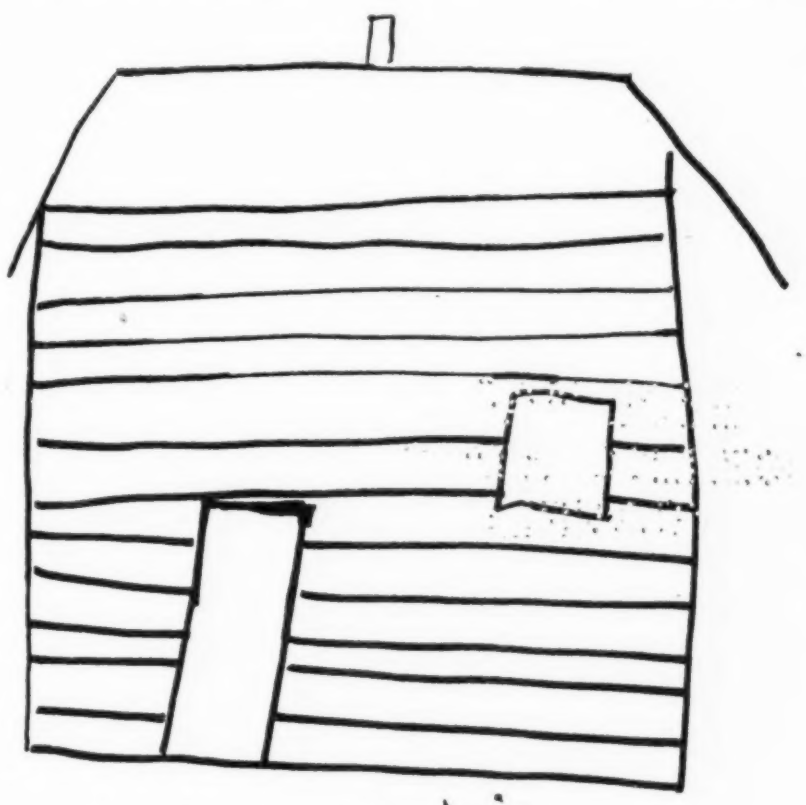
Jane is the tallest child.
The house is as high as it is long.
The roof is the highest part.

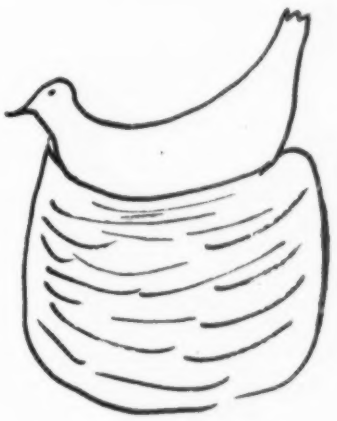
6. Making curtains, 12 inches by 13 inches, with 3-inch hems, also taught number.
7. One child in the first grade who had failed to learn the numbers 5, 6, and 7, learned them when he was chosen to number the houses on our blackboard border.
8. During our doll exhibit the children counted the number of dolls. Frances counted 19 dolls altogether. Wayne counted 10 dressed in blue. Lewis counted 3 dressed in pink. Dorothy counted 6 dressed in white. Nine dolls in the whole group were asleep. All this information was recorded on a chart.
9. In conversations the words *more* and *less* were used.
10. The words *right* and *left* were used while setting tables.
11. In making doll-clothes hangers, lollipop sticks and yarn were measured, and the twelve hangers were counted and called a dozen.
12. The word *dozen* was well established after cookies were served.
13. The children made clockfaces to show the time of home activities, such as lunch. *(Continued on page 66)*

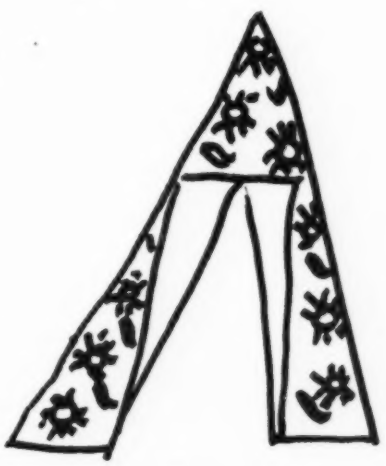
The girls gained useful knowledge while laundering clothes for Sally.

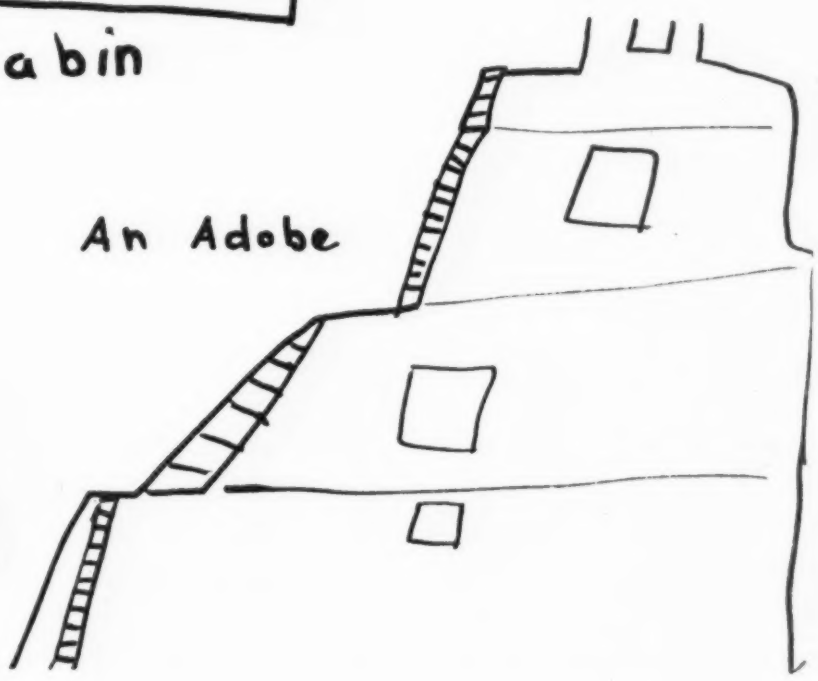

Good Habits in the Home
Grade II
1 Hang up clothing.
2 Wash before eating.
3 Clean teeth twice a day.
4 Be happy.
5 Help others.
6 Keep toys picked up.
7 Have good manners.
8 Eat nicely.
9 Talk nicely.
10 Sleep from 10 to 12 hours.
Feb. 12, 1942

The second grade listed some good habits to help a child keep healthy.


A log cabin




A Tepee


An Adobe

PRESENTING THE PICTURE

Do you have in your home a big book full of snapshots of the members of your family and their friends? The most interesting are those which show some of the everyday experiences we all have.

Probably every family has informal pictures of baby with his toys, family picnics, children playing with their pets, visits with grandparents, camping trips, and summer vacations. Some artists have the gift of catching and expressing in their paintings the same intimate spirit of daily life. The artist who painted this picture had that gift.

When we see pictures of people who lived long ago or far away, we especially prefer those which seem natural, because this brings them close to us, eliminating time and distance. Often we are surprised to discover that they do the same things we do.

THE ARTIST

When we speak of Dutch art we really mean art which was produced in Holland from 1580 to 1700. Pieter de Hooch (pronounced "hoe-chk," not "hooch"), probably born in 1632, in Rotterdam, was one of the great artists of this period.

Very little is known of De Hooch's life. We do know, however, that between the ages of twenty-one and twenty-four he was employed as servant in the establishment of Sieur Justus de la Grange. First they were in Leyden, then in The Hague, and later in Delft. In his spare time De Hooch must have studied painting.

In 1654 he settled in Delft, becoming a member of the painters' Guild of St. Luke. There, some of the best paintings he ever produced were painted, including "The Storeroom," sometimes called "The Pantry." Other paintings for which he is famous are "Courtyard of a Dutch House," "A Dutch Interior," and "A Lady at Her Writing Table."

In 1668 he was living very modestly in Amsterdam and, after 1677, there is no further mention of him.

He and Vermeer of Delft were superior to most of the Dutch artists who painted scenes of everyday life. Pictures of this kind are called *genre* paintings.

De Hooch treated subjects realistically, almost photographically. It is as though we observed them through the small end of opera glasses. In addition to their popular descriptive quality, his pictures are well designed.

He did not begin with figures and then add architectural features, but planned each picture as a whole. The result was a happily lighted household scene with a few well-placed figures. He is one of the masters of Dutch interior painting.

This Dutchman, who so expertly and charmingly painted the little things we can all understand, painted his pictures to look well in the small rooms of tiny, narrow Dutch houses. They were not painted for kings or rich patrons but for ordinary citizens of the Dutch Republic.

This was the first truly democratic period of art. Perhaps that is why we all enjoy and understand De Hooch's pictures.

MINIATURE REPRODUCTIONS, IN FULL COLOR, OF "THE STOREROOM" ARE ON PAGES 34–35.

Pieter de Hooch
"THE STOREROOM"

HARRIET E. GARRELS

Supervisor of Art, Public Schools, Washington, D.C.

COME, let us look into this cheerful Dutch home flooded with sunlight. Whom do we see? What are they doing? Knowing that Holland is famous for cows, is it difficult to guess what is in the jug?

Let us name the little girl Annetje. After Annetje drinks her milk she may go to look out the open window. What can she climb on if the window is too high? Notice the picture above the chair. It is a portrait. Holland had many artists who painted excellent portraits of merchants, doctors, housewives, kitchen maids, fishermen, or anyone who would pose for them.

What an appealing interior! It looks clean and tidy like the typical Dutch home. We can almost feel the warm velvety air coming through the open window. Where can you see a second window? The bright outside light pours through both of them. It even fills the inner room. De Hooch has been called a magician and his wand, the sun.

Perhaps you have been in a farmhouse which had a cool storeroom. Maybe the room had beamed ceilings like the one we see here. All of us have seen tiled floors similar to this one.

What color has the artist used most of all? Orange is a color which makes a place look bright. Why does the little girl wear a dull gray color? Where are there many small gray spots? Gray is a neutral color.

The entire picture is so beautifully arranged that it has an architectural quality. Notice that walls and windows, figures and furniture, doors and other details, all are carefully planned as parts of a well-designed whole. The arrangement of lines suggests a limited space which is intimate and cozy.

But we must not keep the good housewife any longer. She has her skirt turned up as though she were about to scrub the pantry or storeroom. Her snowy cap and collar tell us that she keeps things very clean.

Will you turn a minute, Annetje, and wave us good-by?

LOCATION OF THE ORIGINAL:
RIJKSMUSEUM, AMSTERDAM

AN ART EXPERIENCE

MOST Dutch painters contrasted light and dark skillfully. You can contrast black and white by making some linoleum block prints.

First find a piece of linoleum at least four by six inches in size. Then design a simple picture on paper, and trace it on the linoleum after painting it white. Next paint the parts of your picture which are to be black with black ink or poster paint. A pleasing arrangement of light and dark shapes is especially important.

Cut away the parts which are white with a knife or a tool. To make a tool, insert the pointed end of a pen point in a penholder. Use the curved end to dig out the parts which are not to show.

Get some printer's ink from an art supply store or a newspaper office. Place a small quantity on a sheet of glass or marble. Spread it thin with a brayer (roller). Then roll the brayer over the linoleum. Place the inked block face down on the paper and step on it. Be sure the block does not slip. Many prints can be made.

The Class Meeting

An Aid to Emotional Adjustment

FOR MIDDLE AND UPPER GRADES

MURIEL B. NEEDHAM

Principal, Burbank School, Modesto, California

DISCIPLINARY problems melt away under the sunshine of mental and emotional adjustment in the middle-grade child. The majority of his misdemeanors arise from a longing to have his natural desires fulfilled. The following are his most crying emotional needs. They must in some way be met if he is to achieve a well-balanced personality.

1. He needs to feel that he is a participating member of a group.
2. He needs to receive attention from others.
3. He needs to have an outlet for his strong creative urge.
4. He needs to feel repeated experiences of success.
5. He needs to realize a sense of security in his environment.
6. He needs to have the approval of others.

In a crowded classroom, the busy teacher often pushes through the daily program energetically. Conscientiously trying to "get everything in," she gives very little thought to the emotional needs of her pupils. In fact, amid the maze of papers to be corrected and work to be planned, she has little time to think the matter over at all. At odd moments she may *hope* that, in some way, mental hygiene is functioning in her room.

In situations of this kind, the class meeting has proved invaluable. The meeting may consume only twenty or thirty minutes at the beginning of the day and yet make a contribution that far outweighs the time spent upon it.

In the class meetings which I have been observing during the past five years, the procedure that has helped to iron out many cases of maladjustment goes like this.

A president, a vice-president, and a secretary are elected by the class each Monday morning. The president conducts the flag salute, appoints all committees for the week, takes full charge of each meeting, and also conducts the next election. The vice-president holds the flag before the class for the morning patriotic exercise, and takes the place of the president or any committee member who is absent. The secretary records the date and weather upon the blackboard, keeps a list of the committee members in a book, and makes a list of the absentees upon a slip of paper which he files on the teacher's desk each morning. The committees do the work assigned.

The president has the following order of business on a slip of paper to refer to until he has memorized it. He announces each item in turn.

1. Patriotic exercise.
2. Recording of the date and weather by the secretary.
3. Cleanliness inspection by two committee members (appointed by the president).
4. Report of absentees from the class. (Reports are also given on causes of absences and on the progress being made by children absent because of illness.)
5. News report. (Each day a different pupil gives a brief summary of the major news events of the preceding day, radio style.)
6. Announcements. (Bank Day, speeches urging the buying of War Stamps, club meetings, lost and found articles, explanation of new rules, comments "for the good of the school," recognition of birthdays, and welcome to new pupils are all included here.)
7. Committee work.

a) Keeping closets in orderly condition (two children).

b) Keeping the cloakroom orderly (two children).

c) Preparation of paper, pencils, and other materials needed for the day's work (two children).

d) Inspection of schoolyard and, if necessary, picking up papers, and so on—for the day (two children).

e) Checking of playground materials—balls, jump ropes, games, and so on—for the day (two children).

f) Care of pets (one child for each pet).

g) Care of plants (one child).

8. Fun. (Those not doing committee work assemble on the front seats to play with riddles, puzzles, tricks, and jokes, which are contributed by the children. As the committee members finish their work, they join this group. This discourages dawdling.)
9. Class participation.

Monday—Finding-Out Club. (Each child, when called upon by the president, tells of a discovery he has made in the field of science, nature, or the social sciences. A star is placed on a chart by the secretary after the name of each child who gives a worth-while report.)

Tuesday—Storytelling Day. (Children may tell stories they have read or they may relate personal experiences. Grammatical errors are not corrected at this time, but are noted by the teacher and are given impersonal consideration later on in the language period.)

Wednesday—Poetry Day. (Children, chosen by the president, read or recite poems. Sometimes original poems are given. Any poem is accepted, but the listeners applaud only poems which are recited from memory.)

Thursday—Audience-Reading Day. (Each child eagerly waves a book containing the story he has prepared to read, and the children chosen by the president are considered very "lucky.")

Friday—President's-Selection Day. (He generally announces on Tuesday what his choice is to be, in order that the class may be prepared. The following numbers are among their favorites.

(1) Draw a picture and tell us a story about it.
(2) We will have a quiz contest. Our teacher has promised to ask the questions.
(3) We will have another Storytelling Day.
(4) We will have a program of recitations, dramatizations, and songs.
(5) We will have a program of phonograph records.

In order to be effective, the meeting should be entirely under the pupils' control. The teacher should keep her hands off. She should not interfere in any way unless the children appeal to her. Mentally she should assume that she is many miles away from school. If the children are disorganized and noisy, she should recall some adult meetings she has seen and calmly allow the children to work out a solution to their own problems.

A few friendly talks with the officers after school will effect improvements. They should be encouraged to tell the teacher the things they think should be done. Trust the children, give them time to solve their difficulties, and your class meeting will soon be running smoothly with astonishing order and effectiveness.

Children Love a Code

A Good Way of Checking English Errors

FOR MIDDLE AND UPPER GRADES

DOROTHY HARRISON STEINRUCK

Formerly, Teacher, Sixth Grade, Horace Mann School, Newtonville, Massachusetts

HAVE you wished sometimes for a simple method of marking your pupils' errors in written English? If they could learn to recognize their own mistakes in the mechanics of writing, you could pay more attention to sentence structure, organization of material, and vocabulary. I have found that using a correcting code is of definite value.

To use a correcting code satisfactorily, you must see that the pupils have definite knowledge of what they are supposed to know, and references to which they can turn quickly when in doubt. In my class, we reviewed the mechanics of writing which we had studied, formulated our own rules with examples, and then copied them in our notebooks for reference. Every child was thus his own detective. By using the clues, or rules, he was able to avoid errors in written work.

In class we listed the mistakes in the first written work that I corrected. With these as a basis, we prepared a code with symbols, to show necessary corrections. A few other symbols were also included.

This was the code we marked out.

✓	Punctuation marks
C	Capital letter needed
NC	No capital letter
2	Two sentences in one
½	Incomplete sentence
W	Wrong word
S	Spelling
∧	Word omitted
( )	Omit
R	Repetition
#	A well-chosen word
##	Excellent sentence
★	No errors
✳	See me

The children wrote all original compositions in their notebooks. The date was always added. I examined the work, using inconspicuous, but permanent, check marks to show errors. No changes, however, were made in the original work.

With a pencil, each pupil put the code symbol for the necessary correction over my check mark, after proving to himself why it was right. The next step was to confer with another detective to double-check errors.

How simple it was, by using the notebooks for all written composition, to refer to previous assignments, and to determine whether the same error occurred again and again! Convinced by proof, the children willingly attacked extra work to master their individual problems. Every misspelled word was written correctly in the margin. In this way each pupil created a special spelling list.

During the first week of school, each child had written an account of a vacation incident, a hobby, or a pet. These papers, my introduction to the children's interests and their ability to express themselves, were filed without correction, to be used at the end of each semester for comparison of past and present work. When a new pupil registered later in the year, I asked him for a similar paper to file.

Hilarity reigned when the papers were passed out! That they were responsible for such work never failed to amaze and to amuse the children. With definite knowledge of improvement, they approached every new problem with zest, adding rules and code symbols as progress warranted.

Throughout the school year, recognition of known rules governing the mechanics of writing and the correct use of words, and improvement in self-expression, were aims in all written work. Interest was keen. Each pupil was aware of his own progress. With everyone a detective, there was a noticeable decrease in errors.

FACTS for F

DOROTHY H. GRIMM

Teacher, Fifth Grade, Public School No. 133, Brooklyn, New York

This department gives the modern teacher an opportunity to help prepare her pupils for the aviation age in which we are living. The children will delight in building the model airport shown on pages 42–43, as a part of their study.

THE informational material here is ready for you to read to your pupils. The diagrams can be posted on your bulletin board or, if more convenient, copied on the blackboard.

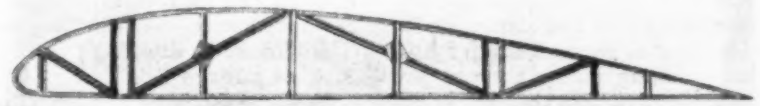
HOW AN AIRPLANE FLIES

ORVILLE and Wilbur Wright experimented for years, building gliders, before they invented the first successful motor-driven airplane in 1903, flown at Kittyhawk, North Carolina. They tried out many different types of wings on their gliders, and watched how they would act in a wind tunnel they constructed. They discovered that a curved wing has more lift than a flat one.

All airplane wings have that curve today. The leading edge is quite round, the trailing edge sharp. Tests of thousands of models show that this shape of airfoil is best. The curve of the surface of a wing is called the *camber*. A section cut through a wing from front to back shows the curve of the airfoil on the top of a wing. See the photograph of a wing rib below; observe the curve.

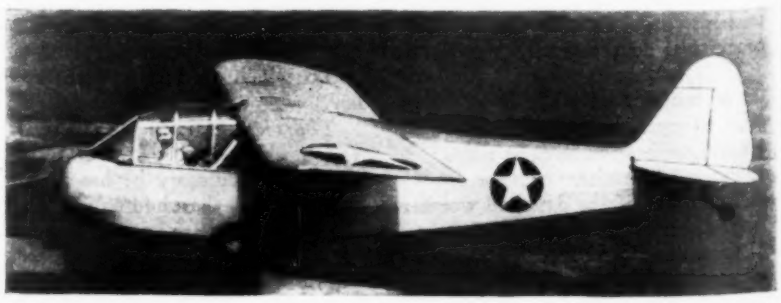
A rounded edge striking the wind causes the wind to move over the airfoil in a smooth flow. Entire airplanes are streamlined in this fashion for greater lift and less drag. A streamlined section of a plane has many times less resistance or drag than a part that is flat or pointed. Wheels that retract into the body of a plane help to streamline it. Scientists are continually working on ideas that will reduce the drag of air on a plane. A rough paint finish or nuts and bolts on the outside of an airplane reduce its speed. Smoother finishes have made airplanes much more efficient.

Air is fluid and, in moving, each little particle of air follows a path or streamline. If this streamline is interrupted by something in the air stream, the particles of air must move out of their regular path in order to go around it. A flat plate moving against the wind makes a great deal of disturbance. The smooth flow of

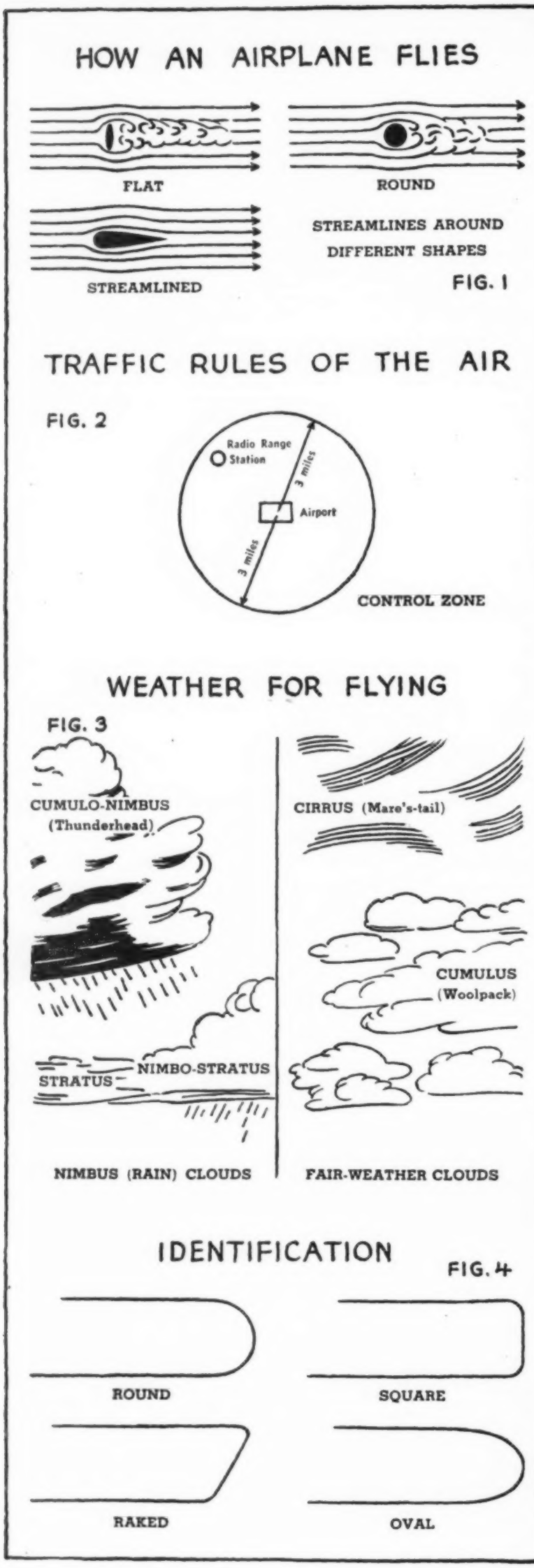


This wing rib shows the curve of the top airfoil. Notice also that in streamlining, the leading edge is rounded and the trailing edge is pointed.

The compass, to the right of the center of this airplane instrument panel, reads 110 degrees. The white line on the glass is called the lubber line.



Make a list of all the parts of this glider that you think are streamlined.



FUTURE FLYERS

Hans Groenhoff

MRS. DOROTHY H. GRIMM is an accomplished pilot, a ground instructor, and a teacher of a fifth grade. Mrs. Grimm, who is author of the book *Junior Aviation Science*, believes that everyone can learn to fly, and that in flying one finds relaxation from the strain of teaching and other work.

Through her contact with children, she has discovered that they are eager to study and to use the many interesting facts of aviation.

the air particles is hindered, causing a jumble, or burbles, behind the plate. Air that flows over and under a streamlined airplane is disturbed very little. The streamlines separate at the front and meet at the back. (See Fig. 1.)

However, even a streamlined shape will cause burbles to form if it strikes the air at too great an angle. If an airplane is flown in too steep a climb, burbles will form on top of the wing, lift is lost, and the plane will stall. Pilots must learn how to bring an airplane out of a stall before they solo, so that if a stall should ever occur they will be prepared.

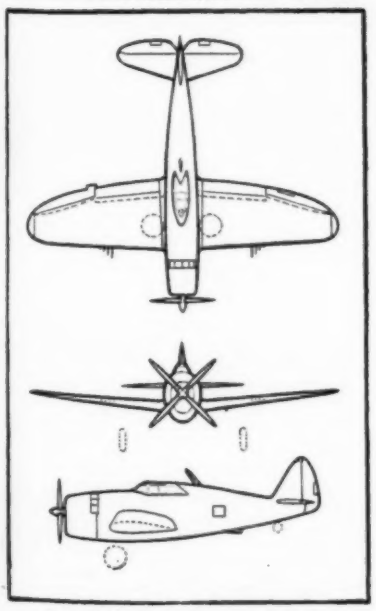
Look at the picture of the glider on page 18 and pick out all the parts that are streamlined.

AVIGATION

For centuries, men have used different kinds of navigation as an aid in getting from one place to another by boat. All of the methods which have been used by captains of ships for many years are still being used by the airmen in flying. Today, still another form of navigation has been added—that of radio.

Flying by landmarks, or air pilotage, you learned about last month. The second method is dead reckoning. The distance and direction to be flown between two places are found on a chart. A line is drawn between the two as in contact flying. The direction to be flown is found in the number of degrees the compass must be headed. Wind must be considered, as it can easily blow one off course. This charting of the course to be followed and the finding of the compass reading is called *dead reckoning*.

Flying by dead reckoning requires the use of a compass which is marked off in 360 degrees—the mark at 90 degrees represents east, 180 degrees indicates south, 270 degrees represents west, and 360 or 0 degrees indicates north. We do (*Continued on page 64*)



Republic P-47 Thunderbolt

THE information given below is for your use in planning and presenting to your class the material in our aviation department.

INTEGRATION

A. Science in the middle grades.

1. Study the atmosphere as part of the earth. Study air as applied to flying. Experiment with a glass of water and a handkerchief (described in last month's article) to show that air has weight; air also moves, as is shown by wind. Experiment to prove that warm air rises and cold air sinks, by blowing soap bubbles over a heated radiator, and note the effect of air currents.
2. Discuss the natural flight of seeds and birds. Learn the types of bird flight and how performed. How are birds adapted for flying?
3. How does a kite fly? Demonstrate the four forces (see Fig. 2 on page 11 in the January 1943 issue).
4. Study how wind, fog, snow, ice, and clouds affect flying.

B. Social studies in the middle grades.

1. In map study, use a globe and a curved rule to give a true concept of what great-circle routes in aviation mean.
2. Make an exhibit of materials used in airplane construction, showing world sources of such materials.
3. Plan imaginary flights to various points on the globe. Present talks or readings in the form of logs by personnel and passengers on the plane, regarding scenery, weather, important points on the way, clothing suitable to weather, and so on.
4. On a map of the world, indicate principal flights in the history of aviation.
5. Discuss how planes can help to protect the United States island possessions in the Caribbean Sea and Pacific Ocean.

C. Social studies in the upper grades.

1. Discuss shrinkage of the world by the use of air travel. From newspapers, clip accounts and pictures of planes in action. Post the clippings on the bulletin board and later transfer them to a scrapbook for a permanent record.
2. Make an enlargement of a map showing the North Pole, and another of a map showing the South Pole. Mark the principal air routes used by transport and other planes flying between the United States and the Middle East, the Far East, Australia, and England. Show mileage and flying time, if average speed is 250 m.p.h.
3. Discuss the military uses of aerial photography; transportation of business personnel by plane; and the value and use of planes in farming, forestry, fishing, and mining.
4. Make a study of simple aerodynamics (the branch of physics that deals with the forces exerted by air or other gases in motion).
5. Under the heading of meteorology, study air and weather conditions for flying in different parts of the world.
6. Discuss the need for civil air regulations.

DEFINITIONS

Every science has a terminology all its own. A study of aviation involves many new and unfamiliar names and words. The following definitions of words used in this department this month will prove useful in reading and presenting the material.

airfoil.—Any surface, flat or curved, as a wing, aileron, or rudder, designed to obtain reaction upon its surfaces from the air through which it moves.

air stream.—A body of air in motion relative to a solid body, whether the air moves past the body, or the solid body moves through the (otherwise) quiet air.

burble point.—Of an airplane in flight, the angle of attack at which the value of the lift decreases either when the angle decreases or when it increases. It marks a change in the nature of the flow of air, which becomes turbulent.

camber.—The convexity or rise of the curve of an airfoil from its chord; usually expressed as the ratio of the maximum departure of the curve from the chord to the length of the chord.

cirrus.—White filmy variety of cloud usually formed in the highest cloud region, normally consisting of minute ice particles.

cumulus.—A massy cloud form usually in the middle cloud region (5,000 to 15,000 feet) having a flat base and rounded outlines, often piled up high.

dead reckoning.—The method of finding the place of a ship from a record of the courses sailed and the distance made on each course, without aid of celestial observations.

nimbus.—Rain cloud, characterized by its uniform grayness, and extending over the entire sky in seasons of continued rain; in general, any cloud from which rain is falling.

rake.—The cutting away of the wing tip of an airplane at an angle so that the main supporting surfaces, seen from above, will appear of trapezoidal form. The rake is positive when the trailing edge is longer than the leading edge.

stratus.—A cloud form which is characterized by its relatively great horizontal extension and its comparatively low altitude (2,000 to 7,000 feet).

streamline.—The path of a small portion of a fluid relative to a solid body with respect to which the fluid is moving.

QUESTION BOX

What is meant in aeronautics by the word ceiling?

The word *ceiling* has two meanings—one is the height of the cloud base above the ground; the other, the altitude that a plane may reach under conditions of lower air pressure in the upper regions.

What knowledge of meterology is needed by a pilot?

A pilot must know the composition and the movement of the atmosphere, understand clouds and other weather signs, and be able to make forecasts with some degree of accuracy.

EDITORIAL NOTE: Mrs. Grimm will answer your questions on aviation. Address: Facts for Future Flyers, THE INSTRUCTOR, Dansville, N.Y.

Developing Better Reading

ARTHUR TOYE FOULKE

Formerly, Principal, Mahoning Township Consolidated School, Montour County, Pennsylvania

READING has been termed the most important and troublesome subject in the elementary curriculum. The reading problem faces *every* teacher. In primary grades, reading is the most frequent cause of school failure. It is an important determiner of achievement in other school subjects in the intermediate grades. That it largely determines success or failure in the upper grades, as well, can easily be understood, since it is a tool that is basic to nearly all learning.

Arthur I. Gates, professor of education at Columbia University, maintains that reading should always be a happy experience, and that the aims of all good reading instruction are efficient and pleasurable reading. He contends that most reading difficulties are due primarily to failures to acquire techniques that might have been acquired had the right guidance been given at the right time. According to him, the chances are that most children who have an I.Q. above 70 could learn to read if the optimum methods were used, despite any physical, mental, and emotional obstacles. Whereas the teacher is not responsible for, and can do little to better, organic deficiencies, he *is* largely responsible for the skills and techniques of his pupils.

The elementary-school responsibility is clear: From a widely diversified background it must develop in each child optimum reading performance for him.

The ideal reading teacher understands the techniques involved in competent reading, and the various ways in which they may be developed, and is able to suit methods to pupils in the light of their limitations and aptitudes. Knowing that reading difficulties are frequently due to deficiencies in habit formation (found in superior and dull children alike), he also knows, to his relief, that these may often be remedied. Careful consideration of the following points will help any teacher to improve in his teaching of reading.

SIGNIFICANT TRENDS IN TEACHING READING

Emphasis is placed on having the child *think* actively as he reads.

Reading is made a functional skill rather than a formal school exercise. Children read to get information or answers to questions, for enjoyment, and the like.

Reading is integrated with the whole school program.

Reading is interrelated with personality; that is, personality adjustment and reading adjustment are considered to be closely related.

Reading readiness is developed before reading is taught, through such experiences as looking at pictures, listening to stories, having a science table, going on trips, carrying on discussions.

Reading has a casual, informal beginning, and a gradual development. Stories of children written at children's dictation may be used as a beginning.

Improvement in methods of teaching has been made. More varied and flexible techniques are used. Pupils are taught to read in thought units —not syllable or word groupings. (Properly used, perception cards are especially helpful in the primary grades. They represent a "supplementary device." However, they also represent an unreal reading situation; the transfer of skills is disappointing. They should be used to emphasize the need of comprehending several words in a single glance, and to establish the habit of trying to take in phrases as wholes.)

Phonetics now occupies its legitimate place as one technique in word analysis. There should be a happy medium between overemphasis on phonetics and complete neglect. Pupils persistently weak in phonetics should be tested for auditory defects and phonetic inaptitude.

Increase in number, variety, and quality of books is evident.

Reading is more flexibly adjusted to the whole daily schedule; no longer "by the clock."

Goals are in terms of individual capacities, attitudes. (It is more wholesome for a pupil to be concerned with bettering his own record than with "beating" other class members or reaching various hypothetical class norms.)

There is frequent and more certain diagnosis.

Greater stimulation is given to reading interests.

Recognition of the need for better libraries is found.

Opportunity for all (not just work-type) phases of reading should be developed.

DEVELOPING FUNDAMENTAL HABITS, SKILLS, AND ATTITUDES

A. Five stages in learning to read (as described by William S. Gray).

1. Reading readiness.

Children should be six and a half years old before entering school.

Gates lists the following steps in the developing of readiness: oral vocabulary, power or skill of observation, left-to-right skill, building of concepts, similarity of various reading materials with which children come in contact, and a check on eyes and ears.

Other means of effecting readiness are: training to speak in complete sentences, a well-planned program of activities, care taken not to force the child to read, and general consideration of the emotional, mental, and physical factors; diagnostic tests; and conferences with previous teachers.

Prevention rather than cure is the keynote in developing better reading.

2. Initial guidance in learning to read.

3. Rapid progress in fundamental attitudes, habits (first three grades). It is important to discover disabilities and bad habits early, since by the end of the third grade they are so well established as to be very difficult to break.

4. Extension of experience, greater efficiency (grades four to six). Provide content (literary and scientific) material, dictionaries, and other supplementary reading material.

5. Refinement of tastes, habits, attitudes (high school and college).

B. Word recognition (development of a reading vocabulary) is a means to an end and is developed through incidental as well as direct teaching.

1. The vocabulary list by Gates is usually used for primary grades; and the Thorndike Word List for intermediate and upper grades. (See bibliography.)

2. Develop vocabulary through picture clues, context clues, word-form or phonetic clues (introduced in the latter part of the first grade), syllabication (third grade), and diacritical markings (not much before fifth or sixth grade).

REMEDIAL INSTRUCTION

A. Common causes of disabilities.

1. Emotional problems.
2. Personality maladjustment.
3. Worry and discouragement.
4. Poor intelligence.
5. Foreign language spoken at home.
6. Poor teaching.
7. Reading materials too hard.

B. Correction.

1. Remedial instruction must be continuous for children who need it.

2. Diagnose difficulties by means of reading and intelligence tests, vision and hearing tests, and tests of spoken vocabulary.

3. Use better teaching methods. In general, sharpen regular procedure. Children should:

a) Have easier reading materials.
b) Be relieved from the tension or embarrassment produced by reading aloud before the class.
c) Receive encouragement.
d) Be shown definite purposes for reading which appeal to them.
e) Be shown where their special difficulty lies.

In general, the remedial cases represent failures of the ordinary methods of instruction *(Continued on page 68)*

Equipment for Numbers

MARION PAINE STEVENS

Instructor, Elementary Department, Ethical Culture School, New York, N.Y.

ONE excellent way to stimulate interest in arithmetic among children, and to develop appropriate number concepts, is to put certain equipment into the schoolroom. Blocks stimulate dramatic play. Paints, crayons, and clay stimulate artistic expression. Library books stimulate interest in reading. In the same way, arithmetic may be stimulated through putting simple work and play materials into the children's environment. Most teachers favor some sort of arithmetic workbooks in primary grades, at least by the second grade. In the third grade, an arithmetic text is often supplied. But the necessity for ample material to use and handle is not so generally realized.

Perhaps the arithmetic tool which first comes to mind is the ruler. Use rulers with half-inch or quarter-inch divisions for primary children, and those with smaller divisions for older ones. Develop a wall chart about the use of a ruler, and letter the following on it: A ruler helps us to measure and to draw straight lines.

Make another chart using these lines from Tippett's *Busy Carpenters:*

Ruler, ruler,
What a treasure!
Help us work
And help us measure.

In introducing a ruler, give a few simple exercises in drawing lines and shapes to those children who need it. Follow this with blackboard directions such as: Draw a line 2½ inches long. Draw another line twice as long. Draw a 3½-inch square. Draw an oblong containing 6 square inches. Such directions make excellent unsupervised work for children, if carefully checked and corrected afterward by the teacher.

Interest the children also in estimating the length of a pencil or blackboard eraser, the dimensions of a book, and so on, each estimate to be checked

TEACHING the

Are the tool subjects a problem to you? If so, you will like this four-page department devoted entirely to the fundamentals. You will find here articles by

by actual measurement. Vary this by having every child write down his estimate on the blackboard or on a piece of paper, after which a child can check the actual length with a ruler and let the children decide who came nearest to being correct. Send groups wandering about the room, rulers in hand, to find "something about 6 inches long," or to find "something about a foot long."

Yardsticks are equally useful for measuring longer lengths, for example the length and width of the classroom. Draw a heavy colored mark at the half-yard line on each yardstick. Two special uses for a yardstick are measuring heights and measuring material for weaving. Children soon learn that a piece of yarn 1½ yards long makes a narrow stripe when they are weaving on a loom 12 inches square, and that one 3 yards long makes a stripe twice as wide.

A tapeline is another measure of length, especially needed in measuring curved surfaces; it is further useful in sewing because it can be rolled and kept in a sewing box.

A six-inch try square is valuable for drawing guidelines on wood to be sawed, and for squaring up surfaces. In working with wood, it is also necessary to know the lengths of different nails. Boxes of nails always have the lengths written on the outside. If the nails are loose, children can measure various ones, in order to find the length they desire.

A few pencil compasses should be available for drawing circles. As soon as the children grasp the two main principles of the compass, they can use it happily and understandingly. They must learn: first, that the wider they open the compass, the larger the circle they will draw; and second, that the distance across the center of a circle will equal twice the distance between the two points of the compass. Such directions as "Draw a three-inch circle" may be added to the other directions for drawing lines, squares, and oblongs. One good use for a compass is in making toy clocks and watches.

For measuring volume, a teacher may supply half-pint, pint, and quart sizes of glass milk bottles, measuring cups which are divided into thirds and quarters, teaspoons, tablespoons, and pint and quart berry baskets. Some of these are useful in various cooking experiences.

With a little additional equipment, measuring cups, milk bottles, and berry baskets can form the basis for a variety of significant measurement experiences. (*Continued on page 62*)

Rationalizing Fractions—III

AMY J. De MAY

Formerly, Training Class Instructor, High School, Norwich, New York

THIS is the third in a series of lessons on teaching fractions. Previously discussed were the making of halves, fourths, eighths, and sixteenths, and explanations of the numerator and the denominator.

LESSON V—SPECIAL REVIEW OR TEST OF COMPREHENSION

Each pupil should have a ruler, paper, a pencil, and a copy of the text, with drawings of lines, squares, and so on, inserted according to the bracketed directions.

1. Draw a line on your paper that is ¾ as long as this line. [Show a line 4 inches long.]

2. Draw an oblong that is ⅔ as long as this oblong, and half as wide. [Show an oblong 3 inches long, and ½ inch wide.]

3. Look at lines A and B of this question, and write the number that should be in the space left blank.
Line A is ..... as long as Line B.
Line B is ..... as long as Line A.
[Show Line A, 1 inch long; Line B, 3 inches long.]

4. Esther has 4 cents. Mary has 1 cent. Esther has ..... as many cents as Mary. Mary has ..... as many cents as Esther.

5. Emma has a piece of ribbon 4 times as long as the one Ella has. This line [show a line 2 inches long] is the length of Ella's ribbon. Draw a line on your paper that is just as long as Emma's ribbon.

6. Ella's ribbon is ..... as long as Emma's ribbon.

7. Draw three small squares in a row like these, and mark them Group A. [Show 3 half-inch squares.]
Draw another group of four squares the same size in a row under these three squares, and mark them Group B.
There are ..... as many squares in Group A as in Group B.

8. Draw three little circles in a line, and mark them Group A.
Then draw two circles the same size under these circles, and mark them Group B.
There are ..... as many circles in Group A as in Group B.

9. Here are the marbles that John has. [Show 8 small circles.]
Here are the marbles that James has. [Show 7 small circles.]
James has ..... as many marbles as John. 7 is what part of 8?

10. Ann read 4 pages in her reader while Jane read 8 pages in hers.
Ann read ..... as many pages as Jane. 4 is what part of 8? 8 is how many times 4?

11. Lucy picked 3 quarts of berries while I picked 2 quarts.
I picked ..... as many quarts as Lucy. 2 is what part of 3?

12. John's father sold 8 gallons of milk, and Jane's father sold 5 gallons.
Jane's father sold ..... as much milk as John's. 5 is what part of 8?

13. May was given 4 pairs of socks, and her sister was given 2 pairs.
May received ..... as many pairs as her sister. May's sister received ..... as many pairs as May did. 4 is ..... times 2. 2 is ..... of 4.

14. Make and solve problems in which you use these fractions.

(1) ½ foot	(4) ¾ foot
(2) ⅛ inch	(5) ½ inch
(3) 6 inches	(6) 4 feet

LESSON VI—FIFTHS AND TENTHS

Materials: Penny, nickel, dime, quarter, half dollar, and dollar. (For this lesson, either a dollar bill or a silver dollar will be satisfactory.)

Motivation: Here are samples of money. Let us see what fractions we can learn from these pieces of money.

Name the different coins. Tell how much each is worth.

How many cents are in a nickel?

A cent is what part of a nickel? Write one fifth in figures.

A nickel is worth how many times as much as a cent?

How many cents make a dime?

Then a dime is worth how many times as much as a cent?

A cent is worth what part of a dime?

Write one tenth in figures.

A nickel is worth what part of a dime?

Two cents is worth what part of a dime? Why?

Three cents is worth what part of a dime? Why?

Write one fifth and three tenths in figures.

How much is a quarter worth?

Why is it called a quarter?

Two quarters are equal to what other piece of money?

Why is it called half a dollar?

A nickel is what part of a quarter?

Then what part of a quarter are two nickels? Why?

What part of a quarter are four nickels? Three nickels?

What part of a quarter are five nickels? Why?

A dime is what part of a dollar? Why?

Five dimes make what part of a dollar? Why?

Ten dimes make what part of a dollar? Why? (*Continued on page 64*)

Poster Aids for Phonics

DOROTHY E. COOKE

Teacher, Second Grade, Randolph School, Topeka, Kansas

MY PHONICS stories were developed to interest children of the second grade. They are based on the idea of stimulating recognition of the desired sound by the use of a definite key word, combined with a picture, to aid in establishing the sound.

These story posters will help to focus the children's attention on the abstract facts of phonics through the pleasant medium of nonsense stories. As a learning aid they contribute much to the growth of meaningful concepts in phonics. The children will soon substitute the name *vowel* letters for *clown* letters in their vocabulary, and thus lay aside the aid which is no longer needed.

Read each story to the children; show the picture and discuss "what we are to remember." Post the stories on your classroom bulletin board. Refer to the vowels as being like clowns. Encourage the children to think of the picture associated with the sound, then the word, and then the sound itself. Follow this procedure until the sound is established; at that time; the sound of the letter or the sight of the letter should produce the immediate desired response (sound). After the children know the sounds of the clown letters and use them easily, tell them that the "grown-up" name for the clown letters is *vowels*, and that they may call them by the grown-up name.

Phonics, in order to have utility, must be developed to the skill stage of learning. To accomplish this end the children must meet the sound in many situations. Your phonics stories are only a basis for establishing memory and use of the sounds; in order to develop the desired skill, use many exercises of different types. If phonics is taught to the stage of ready response, children will have a useful method of solving the pronunciation of new words independently.

The phonics posters discussed in this article appear on the next two pages. Post them on your bulletin board so they can be used during your reading classes.

THREE R'S . . . .

experienced teachers, describing how they teach spelling, reading, arithmetic, and handwriting. Watch for similar articles appearing regularly on these pages.

Your Phonics Posters

Dorothy E. Cooke

Teacher, Second Grade, Randolph School, Topeka, Kansas

A clown is a funny, funny fellow. He likes to play tricks.

He will play a trick
on his mother,
on his father,
on his sister,
on his brother,
or on his friend.

Well, well, well,
Listen to what I tell.

Five of our letters are like clowns.

They play tricks on every girl and boy.

They hide in words.

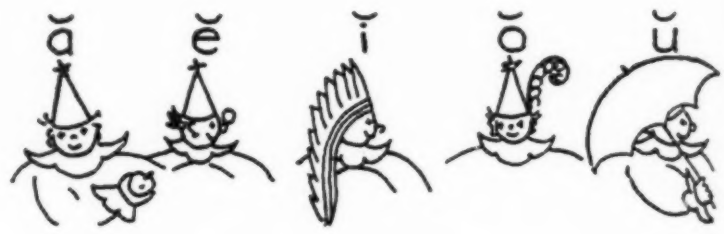
They stand in the wrong places.

Sometimes they will not work at all.

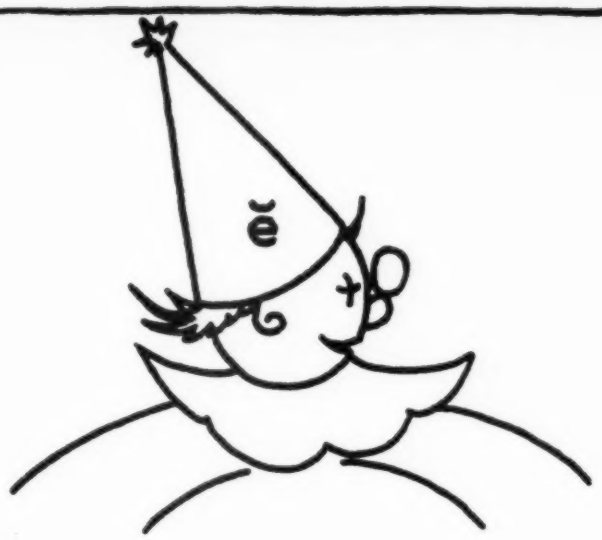
Remember the names of these clown letters.

a e i o u

When we see them hiding in words, let us call them by their short names.



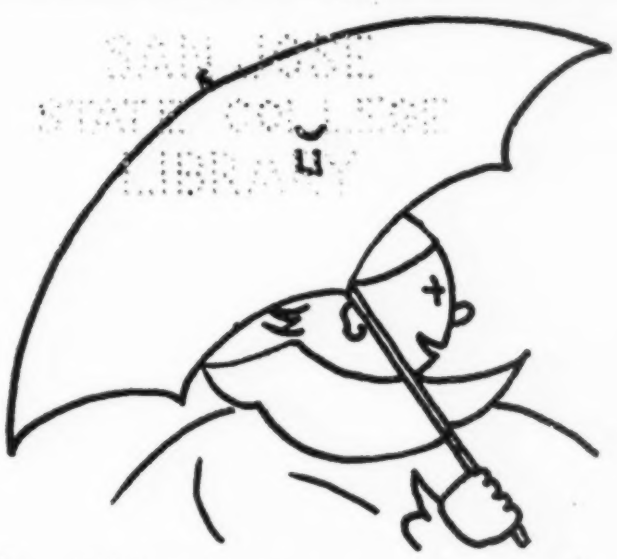
Look! Look! Look!
An apple ă
for the teacher.
Remember the apple
for the teacher—
and then you will know
the sound of ă.



See what I am doinq.
I am balancinq an eqq
on the end of my nose.
Think of the eqq
on the end of my nose,
and you will know
the sound of ĕ.

I always wear
an ostrich feather
in my hat.
I know, you know,
we know
the sound of ŏ,
just like ŏ in ostrich.

Oh! Oh! Ho! Ho!
Do you know me
in my Indian suit?
I am playinq Indian.
Hear the sound of ĭ
in Indian?
Watch for the sound of ĭ.



I will help you remember
the sound of ŭ.
I qo to school
carryinq my umbrella.
I qo home
carryinq my umbrella.
Remember ŭ in umbrella.

THEY MADE OUR COUNTRY GREAT

March Birthday Stories

Your pupils may enjoy making a "My Biography Book" and writing in it, in their own words, the stories of these great Americans. Clippings and pictures may be added.

AUGUSTUS SAINT-GAUDENS

MARCH 1, 1848

AUGUSTUS SAINT-GAUDENS was a lively boy who grew up in New York City, though he was born in Ireland. He used to like to sketch the shoemakers in his father's shop.

When he was thirteen years old, his schooldays were over, and his father asked him what he would like to do. He replied, "Something which would help me to be an artist."

He learned to be a cameo-cutter, and studied drawing at night. Later he went to Europe to study sculpture.

He was delighted with Rome's art treasures. But what do you suppose was the first piece of sculpture he made there? A statue of Hiawatha!

There are statues by Saint-Gaudens in many American cities—bronze figures of Admiral Farragut, General Sherman, Abraham Lincoln, and others. His statues are world-famous.

De WITT CLINTON

MARCH 2, 1769

NEW YORK CITY was the birthplace of De Witt Clinton. His uncle was the first governor of New York State. From early boyhood De Witt heard public affairs discussed. It is not surprising, then, that he gave so much time to them when he grew up.

After his graduation from Columbia College, he studied law and became private secretary to his uncle. For a year, Clinton served in the United States Senate, and then he resigned, to become mayor of New York City. In 1824 he was elected governor of New York State.

De Witt Clinton was always public-spirited. He was enthusiastic about the Erie Canal and persuaded the people of New York State to have it dug. The canal was completed in 1825, and proved very profitable.

De Witt Clinton did much for public education, too, and he founded the New York Historical Society.

ALEXANDER GRAHAM BELL

MARCH 3, 1847

THE invention of the telephone made Alexander Graham Bell famous. Influenced by his father's work with deaf-mutes, Alexander as a youth had succeeded in teaching speech to deaf persons. Born in Scotland, he eventually came to America to teach in Boston University.

As a young man, Mr. Bell was interested in the science of electricity. It was while trying to work out a system of multiple telegraphy that he first thought of the telephone.

Bell experimented for many years and was often disappointed, but finally he was successful. He obtained his patent on the telephone on his twenty-ninth birthday, in 1876.

In later life, Bell helped in the development of aviation, and was recognized as a leading scientist. But, in spite of his many other interests, he continued his work for the deaf.

LUTHER BURBANK

MARCH 7, 1849

LUTHER BURBANK gave his whole life to improving plants—those that are useful and those that are beautiful. While attending a Massachusetts district school, he learned to know plants at first hand, and at nineteen he decided to make experimentation with them his career.

On a small farm that he purchased, Burbank produced the famous Burbank potato. It added millions of dollars to the value of our crops.

In 1875 he established a small nursery and greenhouse in California. There for fifty years he was busy trying to produce "better fruits and fairer flowers." His chief work was with berries, plums, and lilies.

The fame of this "plant wizard" spread around the world.

OLIVER WENDELL HOLMES

MARCH 8, 1841

OLIVER WENDELL HOLMES was named for his famous father. The son, too, became famous. He graduated from Harvard College, and then served in the Civil War.

After the war, Holmes made law his lifework. He became a member of the Supreme Court of his own state, Massachusetts, and later of the United States Supreme Court.

Holmes believed that in deciding whether or not a law was constitutional, the will and the needs of the people should be considered. For this he was known as a great liberal.

When he was ninety, leading lawyers in our country joined in celebrating his birthday. He lived to be ninety-four, and he still enjoyed a joke as much as when he was a boy.

ANDREW JACKSON

MARCH 15, 1767

HOW many different things Andrew Jackson did! He was a judge. He was a senator. He was a general. He was our seventh president.

He grew up in the "wilderness" of North Carolina and Tennessee. At thirteen, he was fighting in the Revolution. Then he became a lawyer.

In the frontier country, men were not used to obeying the law. Jackson made them do so. The people admired him and sent him to the Senate.

After his victories in the War of 1812 he was more popular than ever. In 1828 he was elected president.

Jackson understood the common people of the frontier. Like them, he was brave and strong, and he loved his country dearly.

JAMES MADISON

MARCH 16, 1751

JAMES MADISON was called the Father of the Constitution. He was born in Virginia and received a good education. His favorite studies were history and government.

After the Revolution, the government under the Articles of Confederation was very weak. Madison had a better idea, which was called the Virginia Plan. Most of it was included in our Constitution.

Next, Madison gave much time to writing newspaper articles and pamphlets explaining the Constitution and telling why it should be adopted. He helped make it the law of our land.

Madison was Secretary of State in Thomas Jefferson's cabinet, and in 1808 he was chosen the fourth president of the United States.

JOHN CALDWELL CALHOUN

MARCH 18, 1782

WITH all his heart, John Caldwell Calhoun loved the South. He was considered one of its greatest political leaders.

As a boy in South Carolina, John was quiet and studious. Later, he had a good law practice, but he did not enjoy it. Soon he was in politics. He was a cabinet officer under Monroe and Tyler, and he was vice-president with John Quincy Adams and Jackson.

When Calhoun first entered Congress he favored strong national powers. Later, his views changed and he believed firmly in states' rights.

This made him the political opponent of many national leaders. Among these were Jackson and Webster. All, however, recognized Calhoun's sincerity in the cause of the South.

GROVER CLEVELAND

MARCH 18, 1837

"I HAVE tried so hard to do right," said Grover Cleveland near the end of his life. So he had. He held public office for many years—first as mayor of Buffalo, then as governor of New York State, and afterward as president of the United States. He served his country at a time when many corrupt men were in politics. The people elected him to office because he opposed these men.

Cleveland had the courage to stand for what he believed was best for the country. Even his enemies had to respect him for his fearlessness and his hatred of wrong. He is the only president who was ever elected for a second term which did not immediately follow his first term of office.

WILLIAM JENNINGS BRYAN

MARCH 19, 1860

WILLIAM JENNINGS BRYAN liked public speaking. He spoke exceptionally well. This helped him when he became a political leader.

Great changes were going on in our country. Farmers got little money for their crops. Men were out of work.

Some thought that if the government would coin more silver money, there would be plenty for all. Bryan was one of them. He made many speeches about it all over the country.

Thousands looked to him for help. In 1896 he made a famous speech, and the Democrats nominated him for president. Three times he was defeated, but he was long the leader of his party. President Wilson appointed him secretary of state in his cabinet.

Bryan served his country well, and he paved the way for others to improve conditions in our land.

CHARLES W. ELIOT

MARCH 20, 1834

OUR great leaders have worked for democracy in different ways. Some fought for it; some made laws. Charles W. Eliot strengthened democracy by improving college education.

He attended Harvard and was a professor there. He was made president of the college at thirty-five.

Eliot believed that colleges should teach science and English and history as well as mathematics and the classics. He believed students should choose the subjects that interested them most. He believed that if they planned to be doctors or engineers, they should be thoroughly trained.

Eliot did things not done before. Other colleges watched what he was doing at Harvard. Then they, too, made improvements.

People in general looked up to Eliot. They knew he was interested in American life and was not afraid to say what he thought.

GUTZON BORGLUM

MARCH 25, 1867

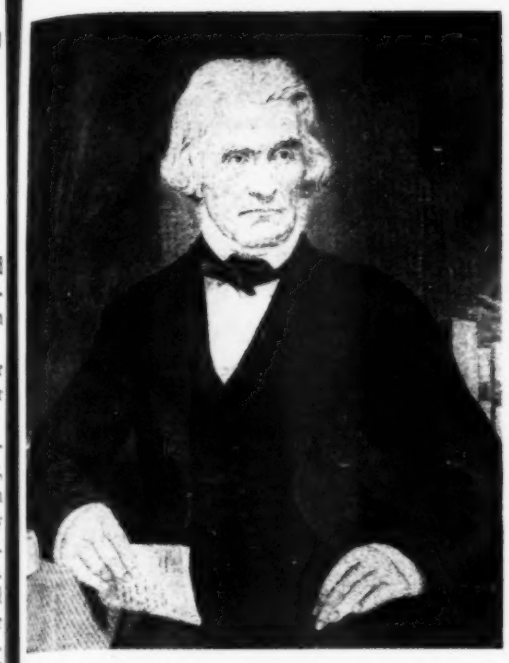
HAVE you ever carved little figures from soap? Gutzon Borglum, the sculptor, carved *huge* figures from granite mountainsides.

Borglum grew up on an Idaho ranch. He studied sculpture in Europe. When he returned, he worked vigorously at his art and at politics.

His great carvings for the Rushmore Memorial made him famous. The Memorial is one of the most remarkable pieces of sculpture ever done by man.

It is in the Black Hills of South Dakota. Carved from a high cliff are the heads of Washington, Jefferson, Lincoln, and Theodore Roosevelt. They are very large. You can recognize the faces miles away.

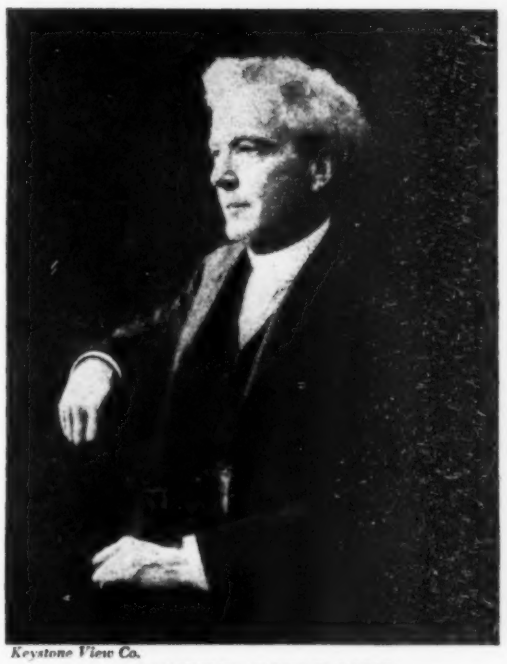
Gutzon Borglum died in March, 1941, before the Memorial was finished. His son, Lincoln Borglum, is bringing it to completion.



JOHN C. CALHOUN

Born on March 18, 1782, this man spent forty years in public service—see story on page 24.

They Made Our Country Great



Keystone View Co.

LUTHER BURBANK

March 7, 1849, was the birth date of America's foremost nature scientist—see story on page 24.

1943

MARCH

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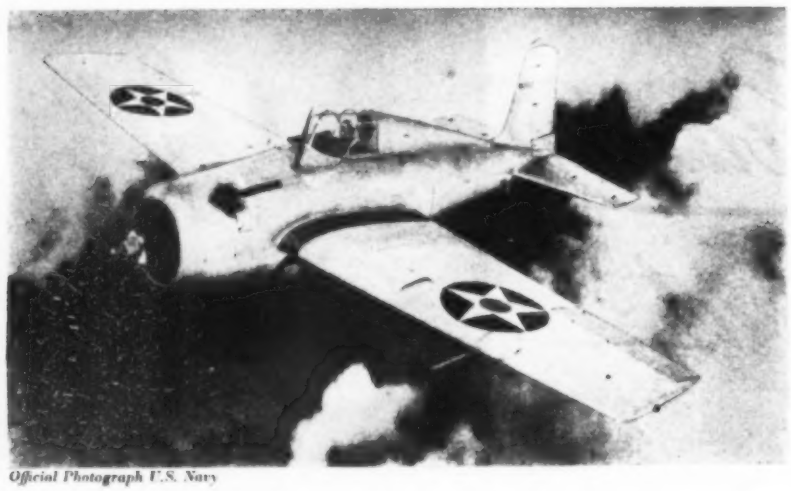
TWO UNITS OF TIMELY INTEREST



Official Photograph U.S. Navy

Aviation, and the iron and steel industry, are two vital aspects of the war. This picture of a navy fighting plane will be a good starting point for either unit.

An Aviation Unit

FOR PRIMARY GRADES

MABEL B. HOWELL

Teacher, Second and Third Grades, Willis School, South Plainfield, New Jersey

APPROACHES

A. Visual materials.
1. Miscellaneous airplane pictures.
2. Pictures showing the development of airplanes from 1920 to 1942.
3. Airways map.
4. Large posters.

B. Discussions.
1. Experiences of two boys who had taken airplane rides.
2. Exchange of information regarding airplane terminology already possessed by the children.

PROCEDURE

A. Answering questions.—The children made a list of questions that they wanted answered during their study.
1. What kinds of planes are kept at our airport?
2. When do they leave and for what places?
3. Are private planes allowed to go on long trips from our airport?
4. Do mail planes stop there?
5. Why are city airports such busy places at this time?
6. What are the names of large airports not far from us?
7. Why are airplane "spotters" on duty all over the country?
8. What are the duties of air-raid wardens?
9. Why is it important for us to learn about airplanes?

B. Building a model airport.
1. The children planned to make an airport for their sand table. [For suggestions that will help your group with a similar project, see pages 42–43 of this issue.]
2. They brought toy airplanes from home.
3. They made the hangar, wind sock, and so on.

C. Visiting an airport.—The girls and boys secured permission to visit the local airport with their teacher.

D. Taking a test.—We finished the unit with a simple test on airplanes, airports, hangars, war planes, pilots, and so on.

E. Drawing conclusions.—The children decided they had profited in the following ways.
1. They were more air-minded.
2. They had learned to discuss intelligently some of the simpler phases of airplane construction.
3. They had become more expert at expressing their ideas regarding aviation and the present war.

CORRELATIONS

A. Reading.—Read stories and poems in supplementary reading books.

B. Language.—Wrote stories and poems about airplanes.

C. Oral language.—Memorized an airplane poem and had discussions about our discoveries in regard to airplanes.

D. Number work.—Measured, and solved simple problems, while making the airplane hangar.

E. Solving reasoning problems.
1. How do planes get up in the air?
2. What makes them stay in the air?
3. Do mail planes carry passengers?
4. What parts do radio and weather play in flying?

F. Music.—Sang songs about airplanes.

G. Geography and nature study.
1. How airplanes resemble birds.
2. How weather affects flying—wind, rain, clouds, fog, hail, sleet, snow.
3. Took imaginary trips to Mexico, Alaska, the west coast, Canada, and South America.
4. Studied the earth's contour.

Steel and Our Defense

FOR MIDDLE AND UPPER GRADES

MARY GALFORD

Teacher of Social Science, Roosevelt Junior High School, Mason City, Iowa

OBJECTIVES

A. Classroom.
1. To learn geographical and historical facts about iron and steel.
2. To learn some of the economic factors involved.

B. Community.
1. To contrast the constructive uses of iron and steel in time of peace with their destructive uses in wartime.
2. To appreciate our country's need for the salvage of scrap.

MOTIVATION

A. Bulletin-board displays.—Posters and pictures dealing with the subject.

B. Experience sharing.—Pupils related personal experiences in "getting in the scrap."

C. Informal discussions.—Statements like the following were discussed.
1. Steel is the greatest material of which the industrial world is built.
2. Iron ore and steel are more important than wheat. (There are many substitutes for wheat, but there is none for iron ore.)
3. Steel is the backbone of the war.
4. Steel, the bone and sinew of American life, has been the tool and the chief material with which we Americans have built our culture and our progress.

PROCEDURE

A. Notebook exercises.
1. Write the answers to these and similar questions.
a) What did people in the early days use to free ore from impurities?
b) How long has iron been known and used?
c) What nations long ago learned to make a superior steel?
d) Why are the names of William Kelly, Henry Bessemer, and Andrew Carnegie associated with steel?
2. Write brief descriptions of the following four steps.
a) Mining of iron.
b) Mining coal, limestone, and other necessary things.
c) Transportation of materials.
d) Manufacturing the steel.
3. Keep a glossary. Examples are: *iron ore, limestone, pig iron, ingot, blast furnace, coke, slag, alloy.*

B. Map exercises.
1. On desk outline maps of the United States or of the North Central States, indicate the following, using crayons or pencils. Be sure to give explanations of symbols on the map.
a) Shade the Great Lakes lightly or color them light blue.
b) Color iron-ore ranges brown or designate by broken lines.
c) Show by circles or yellow dots the chief shipping ports for iron ore.
d) Show by squares or green dots the receiving ports on the Great Lakes.
e) Show by triangles or red dots the chief steel-mill centers.
f) Draw lines on the Great Lakes from shipping ports to receiving ports to interior steel-mill centers.
g) Color coal-field areas black.
2. Write a summary by answering the following questions.
a) What is the part of the Great Lakes in the iron and steel industry?
b) Why is the ore shipped to the coal fields instead of the coal to the iron mines?
c) What climatic problems do the shippers have, due to the location of the Great Lakes?
3. Locate on a map of the world by some symbol or color the minerals listed below; then draw a circle in the U.S. to include the Great Industrial Area. Now draw lines from the various parts of the world to this circle.
a) Manganese from Russia, Brazil, India, Africa.
b) Tin from British Malaya, Dutch East Indies, Bolivia, India.
c) Chromium from Africa, Greece, Cuba.
d) Cobalt from Canada, Belgian Africa, Australia.
e) Nickel from Canada, Norway.
f) Tungsten from China, British Malaya, Bolivia.
g) Vanadium from Peru, Rhodesia.
4. Discuss how the war affects these imports.

C. Posters.
1. Make a poster to show that an important part of the nation's steel is made from scrap iron.
2. Make a pair of posters. At the top of one, print the words *Peace—Construction—Culture.* On this one, draw or paste pictures showing steel buildings, bridges, and other things appropriate to the title. On the other poster, print the words *War—Defend to Prevent Destruction,* and include pictures that fit the title.
3. Make a series of posters to show uses of steel. (*Continued on page 66*)

Fun with Science Riddles

Rose Leary Love

Teacher, First Grade, Public Schools, Charlotte, North Carolina

Look at the pictures. Read the riddles.
Draw the riqht picture under each riddle.

We are very little.
We wiqqle and wiqqle.
We live in water.
Some day we shall be froqs.

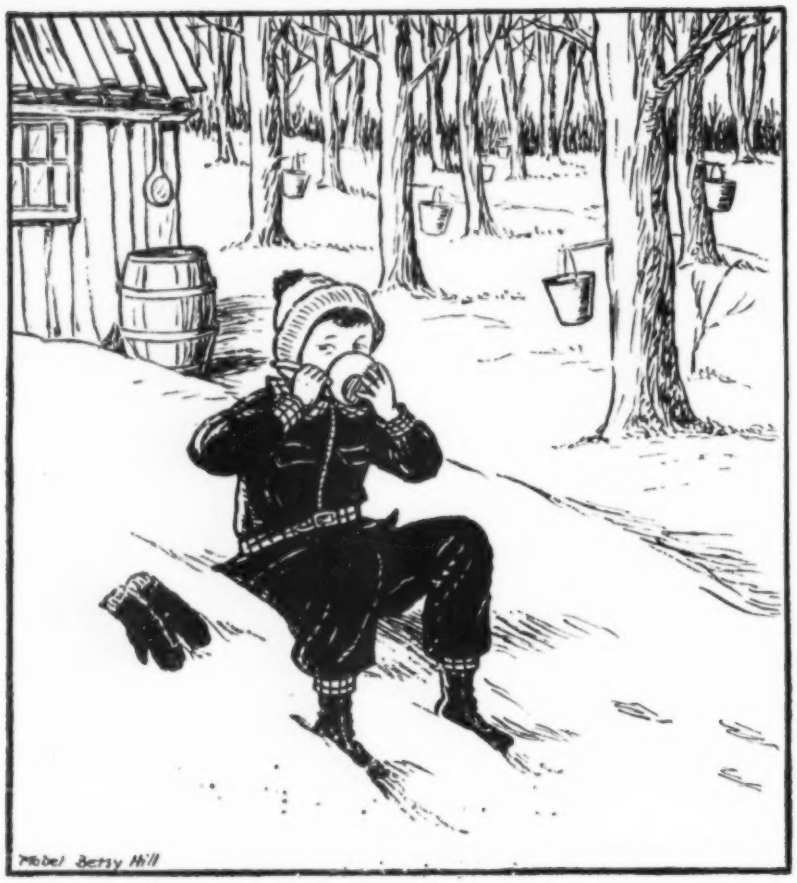
I am round and yellow.
I qive you heat.
I qive you liqht.
I make flowers qrow.

I am not so biq as the sun.
I qive a little liqht.
I do not qive heat.
My shape chanqes.

I look little.
I am very biq.
I am seen best at niqht.
I am very far away.
I seem to twinkle.

Once I was a caterpillar.
I lived in a cocoon all winter.
I came out in sprinq.
I fly at niqht.

Flowers like me.
Children like me, too.
I come from clouds.
I say "pitter-patter" on the windowpane.



Bruce Visits the Sugarbush

MARIAN KENNEDY

Use this story about making maple sugar to start a class discussion on life in the country, contrasted with city life. Children will respond with their own stories.

"Well," said Grandpa to Bruce, who was spending a few days with his grandparents on their farm in Vermont, "today we start making sirup and sugar."

They were at the breakfast table and Bruce looked up from the sirup on his plate into his grandfather's face. "How do you make sirup, Grandpa?" he asked.

"Why, bless my soul! Here is a boy six years old who doesn't know what sugar making is," laughed Grandpa. "Where do you suppose we got that maple sirup you are using on your pancakes?"

"Why, I saw Grandma pour it out of a big jar," said Bruce.

This led Grandpa to say in a scolding tone, "That's the trouble with a child's growing up in a city. He doesn't have a chance to learn the simple everyday things of living."

Grandma only laughed. "I did pour it out of a jar, Bruce, but your grandpa made that sirup last spring."

"And now," said Grandpa, "it's time to make maple sugar again. That's what we mean by sugar making, Bruce, and I think a grandson six years old is just the one to help me."

"Boy!" sighed Bruce. "Do you mean we are really going to *make* maple sirup? When do we start?"

"Right now," said Grandpa, getting up from the table. "Put on your warmest clothes and be sure to wear those boots you brought with you. The snow is frozen hard now, but it's going to start melting before noon and we don't want any wet feet."

"I'll be ready in three minutes," said Bruce, and sure enough he was—ski suit, cap, mittens, and the shiny new boots.

Out in the barn Bruce helped Grandpa hitch the two horses to the big wooden sled, and load on it a pile of tin pails. Grandpa drove the horses but he let Bruce hold the reins, too. They went creaking over the snowy barnyard, down the road, through a few muddy places, and up a steep hill toward a grove of trees.

"Those are maple trees," said Grandpa. "Here in New England we call them a sugarbush."

"Do you always make sirup in the spring?" asked Bruce.

"Oh, yes," said Grandpa. "We have to, because late March, when the nights are freezing cold and the days are warm and sunny, is the time when the sap runs in the trees."

Grandpa stopped the horses in front of a little wooden shack among the trees. "This is our sugarhouse," he explained, "where we make the sirup."

Grandpa's hired man, Jim, was already there, stacking up piles of wood he had cut. "Takes a lot of wood for making sugar," he said.

Bruce went out with Grandpa and watched him bore a hole in the trunk of a maple tree, and put in a little trough that he called a *spile*. There was a hook on the end of the spile. Next Grandpa hung one of the big tin pails on the hook. "Now watch," he said, and, as Bruce watched, he saw, in surprise, little watery drops come out of the tree, run down the spile, and drip into the pail.

"Oh, Grandpa, you're fooling me," said Bruce. "That isn't maple sirup."

"Of course not," laughed Grandpa. "That is the juice of the tree, which we call sap or sugar-water. It looks like water, but just you taste it."

Bruce took off his mittens and caught one of the drops on his finger. "It's sweet!" he exclaimed, as he tasted it.

"Yes," said Grandpa, "when we have several pails filled with sap, we will empty them into the big pan in the sugarhouse, which we call an evaporator. Jim will build a roaring wood fire underneath the evaporator and let the sap boil and boil. After a time the sap will begin to get thick and golden, until at last it will be real maple sirup and we can pour it into cans."

Bruce helped Grandpa tap all the trees and hang up the sap buckets. By noontime he was very tired after tramping through the snow and mud. He went back to the house, but Grandpa promised that he might help again the next day.

So the next morning Bruce went to the sugarbush again. He helped Grandpa empty the sap from the buckets into big barrels on the sled, and when these were full, they drove to the sugarhouse and poured the sap into a large tank. Grandpa praised him for being so helpful.

Bruce had never been so happy in all his life. He loved the excitement of it all. The cold morning air made his cheeks tingle and he danced up and down in delight.

Jim was very busy in the sugarhouse, throwing wood on the fire, and carefully watching the boiling sap. The place was filled with steam and smelled delicious. "Boy," sighed Bruce, "isn't that sirup done yet?"

Jim smiled and picked up a small dipper. He dipped it into a tank and held it out to Bruce. "Here is some sirup we made last night," he said. "It is still warm."

"Last night!" exclaimed Bruce. "Do you make sirup at night, too?"

All this information he was storing away. How much he would have to tell when he returned home! His eyes sparkled at the thought of it.

"Yes," smiled Jim, "the sap runs fast for a few days and we have to work hard to keep up with it. We want to make all the sirup we can, you know."

"Thanks for the sirup," said Bruce. "I think I'll go outdoors and drink it." He went outside and sat on a snowbank. Grandpa came along just as he was finishing the last drop.

"Well, Bruce," he asked, "how do you like making sirup?"

"Oh, Grandpa," cried Bruce. "It's more fun than anything I ever did. This is the best sirup I ever tasted."

"That's because you helped make it," smiled Grandpa.

"You know," said Bruce, "when I grow up I'm going to be a farmer and live in Vermont and make maple sirup and sugar every year."

They Grew Up Together

GERALDINE E. CONDON

A pixie on a bayberry bush and a runaway little girl, buffeted by the Northeast Wind, help each other to grow up in this whimsical story that children will love.

A fat little pixie sat curled up in a cluster of cool gray bayberries. Now a pixie is a fairy who doesn't want to grow up, who just won't grow up, and who never will grow up. Then one day she does something fine for a child who really needs her, and all of a sudden the pixie becomes a fairy without knowing it, and she likes it.

This fat little pixie, curled up in a tiny gray cluster of bayberries, didn't know that soon she was going to become a fairy. She sat there swinging jauntily on her perch, humming softly to herself an air that had no words and very little tune, but was all right for a pixie song.

Up the stony hill came a little girl, her cheeks red from running, her blue eyes gray from crying, her golden hair tangled from being tossed about by a saucy wind. She threw herself down on a mossy seat under the very bush where sat the pixie, idly swinging among the bayberries.

Now, the little girl, like the pixie, did not want to grow up, and for that reason she had run away. Down the green lane from her own back door, over the bridge which spanned the little brook, up, up the hill she had dashed, right to the mossy spot where the fat little pixie was singing.

An angry little girl can make the air very warm around her, and the fat

little pixie in the cool bayberries sat up and said, "WHOOSH—what a warm place this is!" Then she looked down from the bayberries and saw the angry little girl talking crossly to herself.

"I won't wash dishes and I won't go to the store and I won't wash my face and hands and I won't take care of the garden. I won't ever go home. I'll live up here on the hill and I'll watch the people down there and I'll never let them know where I am and I'll never grow up."

"Just like me," said the fat little pixie, "just like me."

The little girl lifted her head. "Who talked?" she said, but the pixie didn't answer because she was in a teasing mood.

The little girl stretched herself out on the moss under the bayberry bush. She didn't see the pixie because she was too cross and naughty, but the pixie saw her and, being a pixie, decided to have fun.

She tweaked hard at a strand of the little girl's hair. She brushed her wings across the little girl's eyes and made them wink hard. She poked a twig into the little girl's nose and made her sneeze, KERCHOO—which blew the pixie right into a neighboring thornbush. Now the pixie didn't like that too well, so she came flying back and filled a hole in the little girl's shoe with tiny pebbles.

The little girl, tired out, soon fell asleep and then the pixie did all sorts of naughty things. She pulled the blue bows from the little girl's hair and tied them onto her shoes. She tied her shoe lacings together. She picked the bayberries off the bush and threw them all over the little girl.

Now the pixie had no bayberries on which to sit! So she flew over to a nice yellow goldenrod and, stretching out on its springy blossom, she, too, soon fell asleep.

There they were in the soft, sweet twilight, the cross little girl and the naughty pixie; and what was ever going to make them good! You could never guess, so I will tell you.

Beyond the hill lay the gray-blue ocean, and blowing across it was the blustery old Northeast Wind, scattering heavy raindrops and sending them this way and that. Now the pixie would not mind that. She could always curl up under a clump of oak leaves, but the little girl did mind it. Old Northeast Wind had brought along the dark too, and so the little girl began to cry very hard, as she thought of her mother and her daddy and her nice warm house. She got up and started to run home.

Since the pixie had filled her shoes with tiny pebbles it hurt her to run, and since the pixie had tied her shoe lacings together she really could not run at all, so she just stumbled along until she fell, over a log, and lay there. Then she cried and cried. Now the pixie had *(Continued on page 67)*

Danny Knew the Answer

ETTA W. SCHLICHTER

This engaging story of how Danny made his knowledge of proportion reveal the height of a tree should inspire the children to work out arithmetic problems with lively zeal!

"I DON'T see any point in having to learn arithmetic," said Dick to his brother, as they played in their yard after school. Danny and Dick were twins, but they weren't a bit alike. Danny liked books. Dick liked sports and always wanted to be outside playing.

"Don't you want to know how to count?" asked Danny.

"I can do that anyhow," Dick scoffed.

"If you couldn't add," Danny argued, "you couldn't tell how much money you had. And if you couldn't subtract, you wouldn't know how much of your allowance you ought to have left after you'd spent some. And if you couldn't multiply—"

"Oh, I know all that," interrupted Dick. "What I mean is arithmetic that doesn't make sense. Today we studied proportion. What good is that, I'd like to know?"

Danny did not answer, but his thoughtful expression showed that he was paying serious attention to Dick's remark.

"What's Mr. Amos doing out there?" cried Dick suddenly. Danny's gaze followed hopefully in the direction Dick was looking. There was always something interesting bound to happen wherever Mr. Amos was concerned. Both boys had learned that from past experience.

Mr. Amos was a policeman. He passed the house every day and he and the boys were good friends. Standing on the corner now, he was looking intently at something. "Do you suppose he's going to arrest somebody?" asked Dick, curiously.

"He's not looking for anybody," answered Danny. "He's just looking at that tree."

"I'm going over and talk to him," said Dick. Danny followed him.

"Is there something in the tree, Mr. Amos?" Danny asked.

"Hello, boys!" called the policeman. "Did you think there was somebody up that tree that I was after? No, Ben James and I were having a friendly argument about that tree. He said it was fifty feet high and I said it wasn't over forty-five. I'm certain that I'm right, but I'd give a quarter to *prove* I am."

"Why not measure it?" asked Dick.

"Climb up to the top and drop down to see how far I'd fall?" laughed the policeman.

"Couldn't you take a tapeline along and drop it down?" asked Dick.

"Why, how could a big man like Mr. Amos climb that slender poplar tree?" cried Danny. "You couldn't even do it yourself."

"Maybe you could measure the house next to it and then guess how much higher the tree is than the house," suggested Dick, feeling wise.

But Mr. Amos laughed. "Guessing won't do," he said. "I can't convince Ben till *I* know for certain. I'll give you a quarter if you can prove that I am right." He walked away laughing, leaving the boys in a deep study of the tree.

"Maybe we could fly a kite up as high as the tree and then measure the string," was Dick's idea.

"Hi! You don't suppose the kite would go straight up and stay in one spot, do you?" asked Danny.

"He said he'd give us a quarter if we could measure it," Dick sighed. "I guess he knew we couldn't."

Danny was in a brown study. "I hope it will be a bright day tomorrow," he said.

"Why?" asked Dick, but Danny did not reply.

The next afternoon the sun shone brightly and Danny asked, "Daddy, may I have one of those tomato stakes in the shed?" When his father said yes, he got it and ran over and pounded it into the ground beside the poplar tree, but not in its shadow.

"What are you doing?" asked Dick, both puzzled and surprised at his brother's actions.

"You'll see," Danny answered, without offering any explanation.

The late afternoon sun, shining brightly, cast a long shadow of the tree down the street. Right beside it was the shadow of the stake.

First Danny measured with a yardstick the height of the stake above the ground. He had pounded it until exactly three feet of it remained showing. Then he measured the shadow. It was six feet long.

Next he gave Dick a long tapeline. "You hold this tightly against the bottom of the tree," he said, "and let's measure the tree's shadow." The shadow was almost, but not quite, ninety feet long.

"There!" said Danny, "Mr. Amos was right. That tree isn't quite forty-five feet high; just a few inches less, I guess."

"You're fooling," said Dick. "How do you know?"

"The shadow of the stick is twice as long as the stick," said Danny. "So, the shadow of the tree has to be twice as long as the tree. That's proportion. Half of ninety is forty-five."

"There comes Mr. Amos now," said Dick. "*He* won't believe that."

But when Danny explained to him, he just held up his hands and said, "Well, well, if that isn't a good joke on me! Why didn't I think of that myself? Proportion! That's an old rule that I learned when I was a boy like you, and I'd forgotten all about it. Now, let me see. I owe somebody a quarter. Which one of you boys does it belong to?"

"I guess to both of us, Mr. Amos," said Danny. "Dick held the tapeline for me."

Dick knew Danny was being very generous.

He smiled up at the policeman and said, "You see, this is the way it is, Mr. Amos. Danny and I were having a talk about arithmetic when we saw you looking at the tree. I was telling him I didn't see any reason for studying proportion. Then you gave him the chance to show me how useful it can be. And I am going to remember," he added thoughtfully.

Mr. Amos smiled. "We can all learn from one another," he said.

READY-TO-USE TESTS FOR M

A Test in Arithmetic

ALMA ZWICKER

Formerly, Teacher, Monfort Heights School, Hamilton County, Ohio

I. *If the statement is true, write* T *after it; if it is false, write* F *after it.*

1. In subtraction the answer is called the difference.
2. A grocer sells his goods at retail prices.
3. If you know the cost of one yard of muslin, the quickest way to find the cost of several yards is to add.
4. In division the quotient should be placed to the right of the dividend.
5. To divide one fraction by another, you invert the divisor and multiply.
6. A radius is half of a diameter.
7. You may buy War Bonds from the government.
8. In decimal fractions the numerator is not expressed.
9. Crossing off a zero at the end of a number divides that number by ten.
10. A grocer usually sells milk by the gallon.

II. *Write the correct answers to the following problems.*

1. A pint of ice cream serves 4 persons. How many pints should I buy to serve 12 persons?
2. Mother buys 3 handkerchiefs for 51 cents. What is the price of each one?
3. How many oranges are there in 2½ dozen?
4. How many minutes are there in 1½ hours?
5. How many months have thirty-one days?
6. A box of candy is marked "⅞ lb. net." How many ounces is that?
7. At a sale I bought 5 bars of soap for 21 cents. How much did I save on the 5 bars if the regular price is 5 cents a bar?
8. A recipe calls for 2½ cups of flour. Jane wants to double the recipe. How many cups of flour will she use?
9. The teacher asks three boys to count her supply of wooden beads. Robert counts 47, George 108, and James 83. How many beads are there altogether?
10. How much do 2½ dozen cookies cost at 22 cents a dozen?

III. *What arithmetical process will you have to use in order to solve each of the following problems?*

1. Betty buys a hat for $2.98, a pair of shoes for $3.69, and a necklace for 54 cents. How much does she spend for all?
2. Jack's father bought 6 gallons of gasoline at 19 cents a gallon. How much did he pay?
3. Joe weighs 95 pounds. His twin sister weighs 87 pounds. How many more pounds does Joe weigh than his sister?
4. Mother buys 2 boxes of cereal for 24 cents. How much is that for each box?
5. Mrs. Smith's electric bill is $4.80. If she pays the bill before the end of the month, she gets a 5 per cent discount. How much does she save by paying before the end of the month?
6. Nora bought postage stamps for $.33. How much change did she receive from a half dollar?

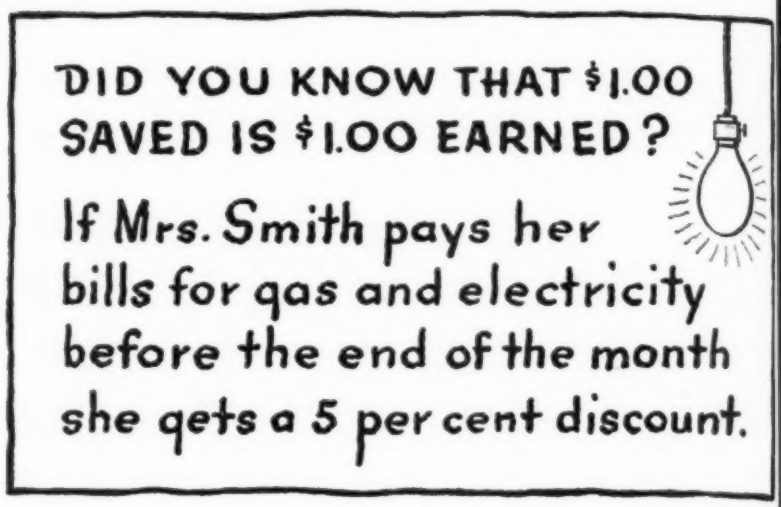
IV. *Write the following statements with the decimal point inserted correctly.*

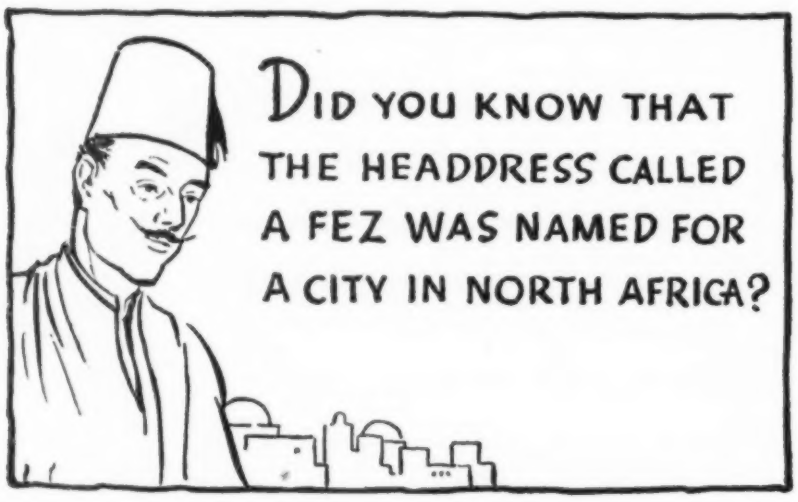
1. Tom is 11 years old and 575 inches tall.
2. James is 12 years old and weighs 9.8 pounds.
3. Mrs. Barton paid $38 a dozen for eggs.
4. George received $7.50 change from a dollar bill.
5. A circus ticket for children costs $5.00.
6. The flagpole in our schoolyard is 3.0 feet high.
7. Jean's mother gave her $15 an hour for taking care of her baby brother.
8. Bob's catcher's mitt cost $280.
9. The depth of the snow was 125 inches.

V. *What must you know to work each of the following problems?*

1. How much gasoline will Billy's brother use in driving from his home in New York State to Camp Shelby in Mississippi?
2. Mr. Jackson is buying a house. He will make a down payment and pay the balance in equal monthly installments. How many payments will he have to make?
3. An airplane makes a nonstop flight between Cincinnati, Ohio, and Atlanta, Georgia. What is its average speed per hour?
4. John wishes to advertise his boat in the "For Sale" columns of the local paper. How much will he have to pay for his advertisement?
5. A wholesale merchant is filling five-pound bags with flour. How many bags will he get from a barrel of flour?

(For key, see page 67)


DID YOU KNOW THAT $1.00 SAVED IS $1.00 EARNED?
If Mrs. Smith pays her bills for gas and electricity before the end of the month she gets a 5 per cent discount.



World Geography Today

ELIZABETH STURGES

Teacher of English, Sixth Grade, Avalon School, Pittsburgh, Pennsylvania

I. *Match each of the North African place names in the numbered list with the correct description in the lettered list.*

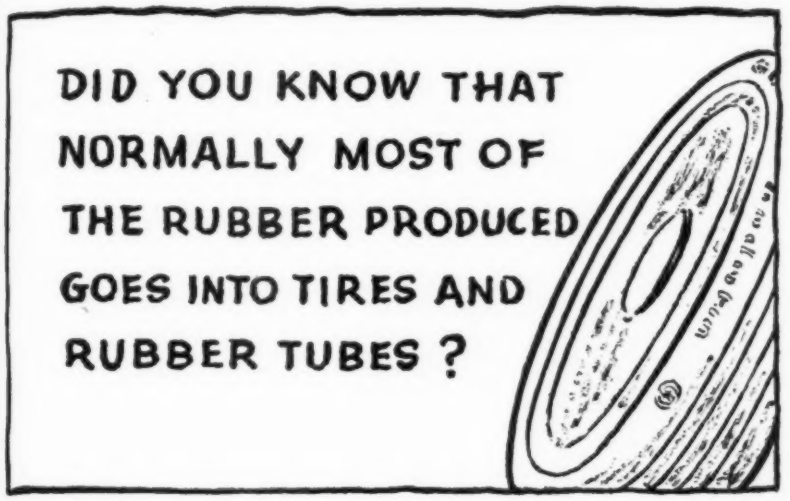
1. Oran
2. Cairo
3. Libya
4. Casablanca
5. Atlas
6. Alexandria
7. Algeria
8. Tangier
9. Nile
10. Morocco
11. Algiers
12. Bizerte (or Bizerta)
13. Port Said
14. Fez
15. Tripoli
16. Tunis
17. Egypt
18. Spanish Morocco
19. Sidra

a. a seaport in French Morocco whose name means White House
b. the chief seaport of Egypt
c. mountains in northwest Africa
d. a famous river of Egypt
e. Egypt's neighbor on the west
f. the northern terminal of the Suez canal
g. the capital of Tunisia
h. the capital of Algeria
i. a city on the northern coast of Tunisia
j. an Algerian port, near the border of Morocco
k. a gulf on the shore of Libya
l. a French protectorate, whose native ruler is a sultan
m. the land of the Pyramids
n. a colony where France has maintained a strong military garrison
o. the capital of Libya
p. the largest city in Egypt
q. a city of Morocco, the center of an international zone
r. the capital of French Morocco
s. a very small colony opposite Gibraltar

II. *Match each place name in the numbered list with the correct description in the lettered list.*

1. Toulon
2. Owen Stanley
3. Port Moresby
4. Darwin
5. Aleutians
6. Burma Road
7. New Britain
8. Dakar
9. Malta
10. Bataan
11. Abyssinia
12. Dardanelles
13. Corregidor
14. Volga
15. Baku
16. Crimea
17. Ukraine
18. Gibraltar
19. Caucasus
20. Madagascar
21. Stalingrad

a. the West African seaport nearest South America
b. a peninsula on the west side of Manila Bay, in the Philippines
c. a chain of islands extending westward from Alaska
d. a port on the southern shore of New Guinea



e. a peninsula between the Black Sea and the Sea of Azov
f. the capital of the Northern Territory of Australia
g. the former name of Ethiopia
h. a British island in the Mediterranean, south of Sicily
i. mountains in New Guinea
j. a city on the Caspian Sea, noted for near-by oil fields
k. a French Mediterranean port
l. a strait connecting the Aegean Sea and the Sea of Marmora
m. The wheat-growing region of Russia, bordering the Black Sea
n. Russia's longest river
o. a British stronghold at the entrance to the Mediterranean
p. a city of Russia, famous for holding out under siege
q. a large island in the Indian Ocean off the coast of Africa
r. a small fortified island at the mouth of Manila Bay
s. the part of Russia between the Black Sea and the Caspian
t. the automobile highway between Burma and China
u. an island in the Bismarck Archipelago *(For key, see page 67)*

Better English

MARGARET E. PARRY

Principal, Second Ward School, Homestead, Pennsylvania

I. *Fill each blank with the correct form of the verb* to be (*present tense*).

1. The data ..... correct.
2. Where ..... the books?
3. The president ..... in favor of it.
4. Not one of the bookkeepers ..... quitting.
5. Sue, as well as her sister, ... pleased.
6. ..... either of you going home now?
7. You, he, and I ..... chosen.
8. The carton of books ..... heavy.
9. Neither Harry nor Ted ..... yet drafted.
10. My old friend and associate ..... here.
11. Each of them ..... contributing generously.
12. Everybody ..... welcome.
13. Anyone who ..... invited will go to the party.
14. All three boys, as well as Mary, ... coming.
15. A list of names ..... being sent.
16. ..... Mr. and Mrs. Jones here?
17. Where ..... I to stay?

II. *In the following incomplete words, the number of blanks shows how many letters are missing. Supply the missing letters, and write sentences in which the words are used correctly.*

1. a - - - - ce: lack, failure to be present
2. me - - - - ous: tuneful
3. me - - - - - sm: all the parts of a machine taken together
4. sep - - - te: to divide, to take apart
5. con - - y: accompany in order to protect
6. pa - - - - tic: showing love and loyal support of one's country
7. e - - - ty: ill will, hostility
8. nu - - - tion: a series of processes by which food is changed into living tissues in the body
9. prop - - - - - a: a plan for spreading ideas, either good or bad
10. mil - - - - y: pertaining to soldiers or war
11. es - - - - ial: necessary
12. li - - - - y: a collection of books or a building that houses such a collection
13. vi - - - - t: a bridge over a gorge, carrying a road or railroad
14. rat - - - ing: allotting fixed amounts *(For key, see page 67)*

Rationed Products

ALMA ZWICKER

Formerly, Teacher, Monfort Heights School, Hamilton County, Ohio

Rubber

I. *If the statement is true, write* T *after it; if it is false, write* F *after it.*

1. Early explorers in the New World saw the natives playing ball games with rubber balls.
2. Our present shortage of rubber is caused by the fact that the entire supply of rubber is being used by the armed forces.
3. No synthetic rubber is being manufactured for civilian needs at the present time.
4. Plantation rubber provides the bulk of the world's rubber requirements.
5. Wild rubber is inferior in quality to the rubber grown on plantations.
6. The life of a rubber gatherer in the jungles of Brazil is considered to be unhealthy.
7. The liquid which flows from the rubber tree when it is tapped is called *latex.*
8. Large numbers of rubber trees are being planted in various parts of the United States.

II. *Match each phrase in the numbered list with the correct name in the lettered list.*

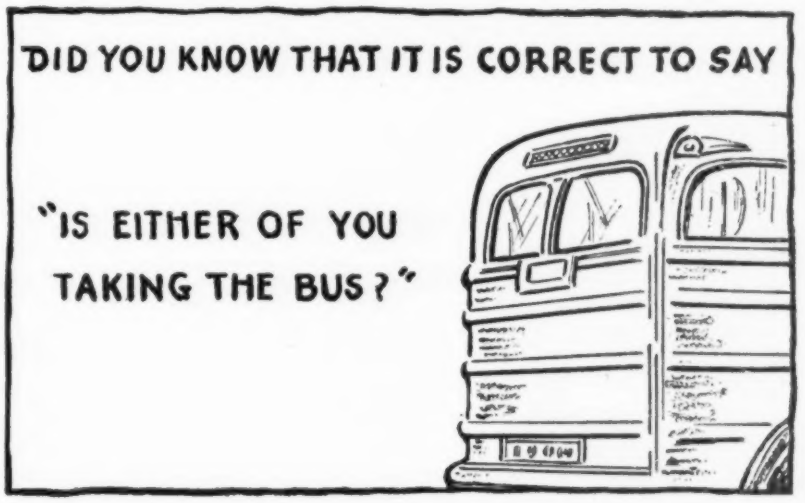
1. the father of plantation rubber
2. where Harvey S. Firestone's rubber plantation is located
3. gave the product the name *rubber*
4. the city which manufactures the most rubber
5. discovered waterproofing of cloth with rubber
6. control most of the world's supply of rubber
7. discovered vulcanization of rubber
8. the location of Henry Ford's rubber plantation
9. probably having a revival in exportation of rubber

a. Akron
b. Goodyear
c. Macintosh
d. Priestley
e. Para
f. Liberia
g. Japanese
h. Wickham
i. Amazon Valley

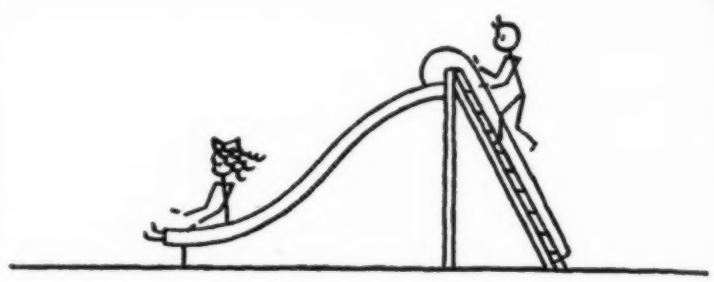
Sugar

Each of the following statements refers to the sugar-cane or the sugar-beet industry. After each write cane *or* beet, *whichever is correct.*

1. It grows in the Temperate Zone.
2. Colorado leads the United States in its production.
3. Refineries are located near the fields.
4. It grows from cuttings.
5. The first refinery was built in Germany.
6. India produces large amounts.
7. It thrives only in a frost-free climate.
8. It has helped to make a country producing it independent of an imported sugar crop.
9. Refineries are located mainly in coastal cities.
10. The West Indies are an ideal region for its production.
11. Protective tariffs have aided the industry.
12. World War I aided the industry.
13. World War I handicapped the industry.
14. Its by-products have been found to be valuable both as cattle feed and as fertilizer.
15. Napoleon encouraged the development of the industry.
16. It grows from seed.
17. The sugar content is in the stalk.
18. The sugar content is in the root.
19. Louisiana leads the United States in its production.
20. Cuba is the largest producer in the world. *(For key, see page 67)*



Before getting off the seesaw, warn the person on the other end.



Before starting down the slide, see that everyone is off.

Do It THIS Way!

Safety on the Playground

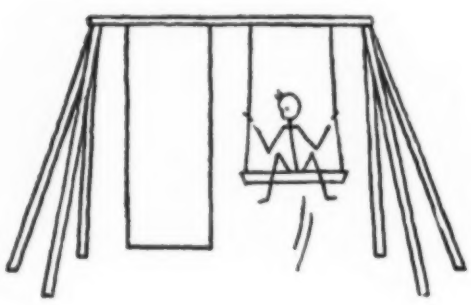
SELMA E. HERR

Assistant Professor of Elementary Education, University of New Mexico, Albuquerque, New Mexico

TELL WHY

1. You should not jump off the swing while you are swinging high.
2. You should stand back and away, while watching a game.
3. Only one person at a time should be on the slide.
4. Playing near or under the swings, when someone else is swinging, may cause an accident.
5. It is inconsiderate and unsafe to get off a seesaw suddenly without warning your playmate.
6. Swinging sidewise is dangerous.

If you are watching a game, stay a safe distance away.



Swing straight ahead, not sidewise.

If you are not swinging, stay away from the swings.

A SCHOOLROOM WEATHER BUREAU

FOR MIDDLE GRADES

DOROTHY LOCK YOUNG

Formerly, Teacher, Fifth and Sixth Grades, Main Street School, Glen Ellyn, Illinois

Weather forecasting is a subject of never-ending interest. Children will delight in having their own school weather bureau and here are suggestions for starting one.

CHILDREN are particularly interested in weather, since it determines to a large extent their play, their plans, and even their dispositions. By teaching them a few basic facts regarding weather indicators, you can make it possible for them to manage their own weather bureau, and forecast with a fair degree of accuracy. Rainy days bring satisfaction rather than dismay when they come as a result of weather conditions observed and interpreted by eager amateurs.

Why not, then, establish a weather bureau in your own schoolroom? Probably the ideal time of year for such an adventure is in the early spring. Rains at that time are frequent; the daylight span is lengthening; and interest in the out-of-doors is reawakening.

OBJECTIVES

To teach a few basic facts on weather forecasting.

To give a general knowledge of existing climatic conditions in the local region.

EQUIPMENT

A. Weather flags.

1. The flags can be made by the children according to these directions:
   a) Fair Weather: A white flag nine inches square.
   b) Local Rain or Snow: A nine-inch flag, upper half white, lower half blue.
   c) General Rain or Snow: A blue flag nine inches square.
   d) Approaching Cold Wave: A white flag with a black square in the center.
   e) Temperature: A black, a white, and a red triangular pennant.
2. Use of pennants.
   a) The black pennant above a weather flag indicates warmer weather; shown below a weather flag, it indicates colder weather.
   b) The red pennant indicates easterly winds; the white pennant indicates westerly winds.

B. A barometer.

1. Procure a mercury or an aneroid barometer if possible.
2. A very simple barometer like the "ship's glass" can be constructed.
   a) Use a bottle, a tight stopper, and a long piece of glass tubing.
   b) Have the glass tubing bent at a right angle near one end, and a few inches away at another right angle in the same direction. Force the shorter end through the stopper, and turn the bottle upside down. Have the bottle a little over half full of water. Lines can be painted on the bottle to indicate different levels. When the water level in the bottle rises, it is said to be a rising barometer; when it sinks, a falling barometer is indicated. Weave a wide-meshed network of raffia around the bottle as a hanger, and hang it outside.

C. A thermometer.—The pupils will all be familiar with the thermometer. Teach them to take a thermometer to a place partly shady, partly sunny, and swing it with a figure-eight motion ten times, to find the exact temperature.

D. Daily record.—Keep a daily record of observations and forecasts, and post it in a conspicuous place. We used a chart with these headings: Date, Chief, Assistant, Sunrise, Sunset, Temperature, Barometer, Clouds and Sky, Our Forecast, and Actual Weather.

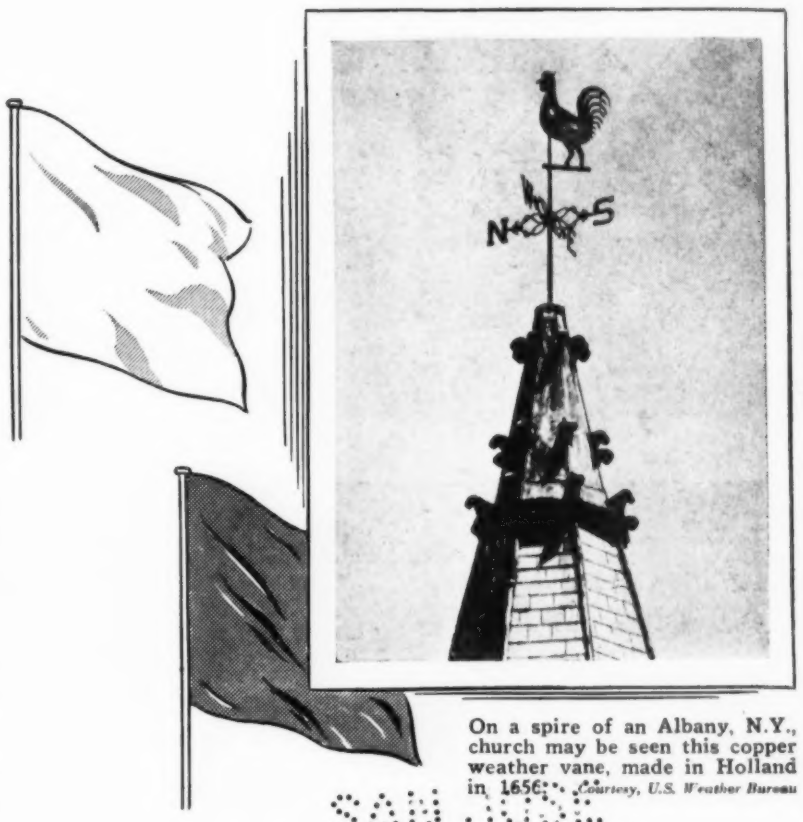
ORGANIZATION

A. Arrange a program.

1. Each day have a weather man and an assistant. The assistant of today becomes the chief of tomorrow. Thus, one child who has had some experience and one beginner work together.
2. The children must be chosen in an impartial way, and over a period of time long enough to include everyone, as each will want his opportunity.

B. Teach children how to forecast. Three things are needed in formulating a weather forecast: the wind, the clouds, and the barometer.

1. The direction of the wind (always named for the direction *from* which it comes) may be determined in a number of ways.
   a) A handkerchief held high will catch the breeze.
   b) A small piece of paper thrown into the air gives a fair test.
   c) Moistening a finger and holding it up to see which side cools first is another simple device.
   d) Often wind direction can be discerned by watching the movements of leaves on trees.
2. In the region of the Atlantic Coast or the North Central States, where we live, a prevailing east wind brings rainy, a west wind fair, north wind cold, and south wind warm, weather. Thus we are able to draw the following conclusions: northeast wind means cold and rainy, northwest wind means cold and fair, southeast wind means rain and warmer, and southwest wind means fair and warmer.
3. The basic fact in cloud study in our locality is that only the clouds seen in the west concern us, as they alone indicate our weather changes. Recognition of the four main types of clouds will suffice for the amateur weather prophet.
   a) Cumulus—usually a sign of fair weather, but may immediately precede rain. The name *cumulus* means "a heap," and these are the billowy, heaped-up, white clouds most often seen in a blue sky. They look like giant cream puffs if they are located on the opposite side of the sky from the sun. If they are on the same side as the sun, they appear to be dark with white margins.
   b) Cirrus—a warning of rain within a few days. *Cirrus,* meaning "ringlet," is the name given to the curly white wisps of clouds which are the highest ones in the sky. Thin, feathery, and stretched-out in appearance, they are composed of ice crystals. Seldom do they fail to produce rain within thirty-six or forty-eight hours.
   c) Stratus—signs of approaching rain. *Stratus,* meaning "spread-out layers," refers to the smooth, hazy, gray cloud formation which we so often observe low on the horizon, and which usually hides the moon or sun.
   d) Nimbus—clouds from which rain and snow actually come, a last-minute warning of a storm already at hand. Nimbus clouds are large, black, shapeless masses which move very quickly and bring rain at once.
   e) Variation in cloud forms.
      (1) Thunderhead—an indication of an approaching thunderstorm. This in appearance resembles an overgrown cumulus cloud, very black and flat along the bottom.
      (2) Mackerel sky—a forerunner of high winds and sometimes rain. This is really a cirro-cumulus formation, very flaky or scaly-looking, and covering a large extent of sky.
   f) A cloudless blue sky is generally taken as a fair-weather sign, unless it continues over a period of several days.
4. The barometer is controlled by pressure, or weight, of air. Increased pressure produced by cold air, which is heavier (and drier), causes the barometer to rise, while the lesser pressure of warm air (which is more moist) causes it to fall. Thus a rising barometer is said to indicate fair weather; a falling barometer rainy or cloudy weather.



On a spire of an Albany, N.Y., church may be seen this copper weather vane, made in Holland in 1656. *Courtesy, U.S. Weather Bureau*

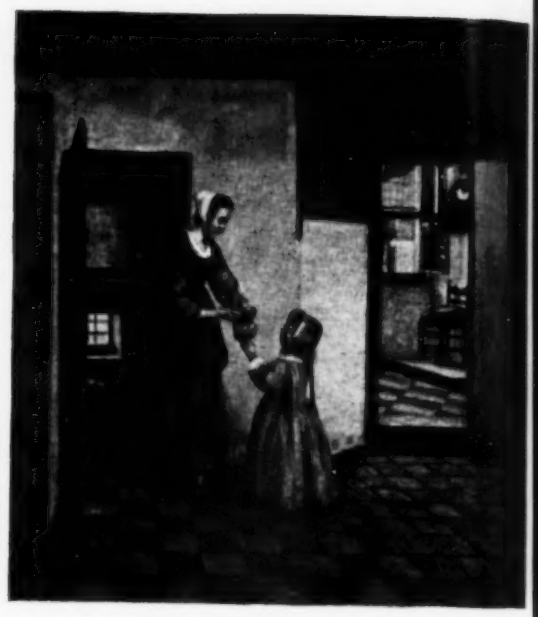
RESULTS

Children will be better able to comprehend the trials of the official weather man when they note the actual weather the following day as compared to their forecast. They soon discover that if they have the courage to make a decision based on actual observation, and do not allow themselves to be influenced by personal opinion or desire, they are usually right.

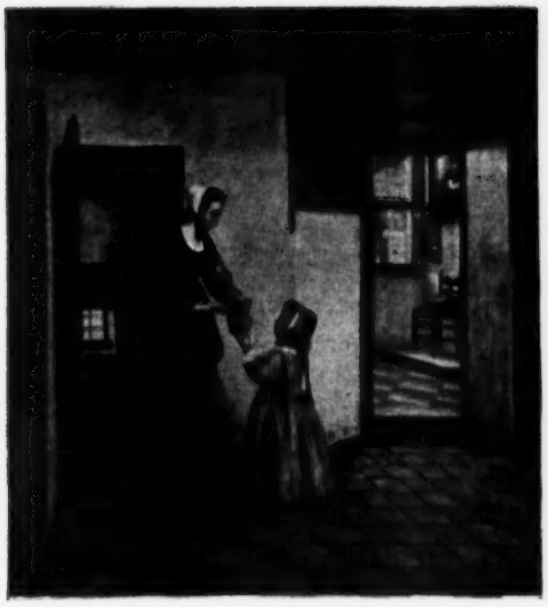
ACTIVITIES

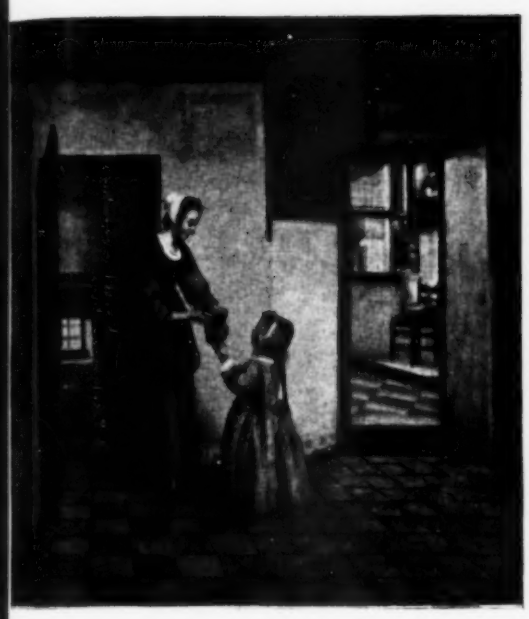
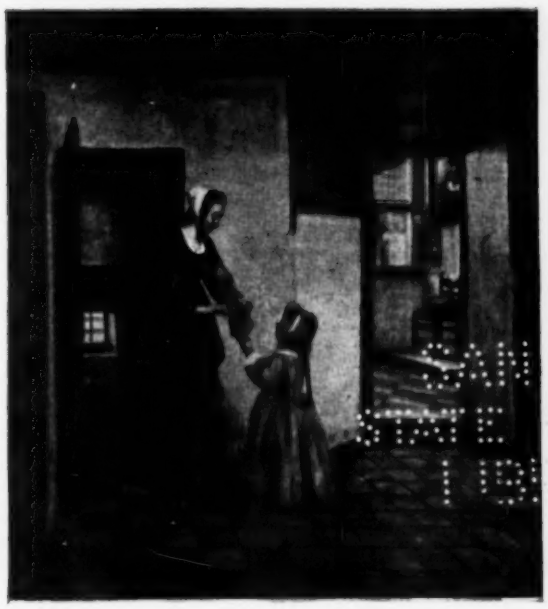
A. Weather problems.—Children enjoy making up little weather problems, or stories, after they have had some experience in weather observation. Here are a few typical stories.

1. Problem: Bob and Marjorie Allen are wondering whether to plan a picnic for Saturday afternoon. This is Friday, and they have had fine weather all week. On Tuesday and Wednesday they saw cumulus clouds in the west. On *(Continued on page 67)*



The Storeroom . . .

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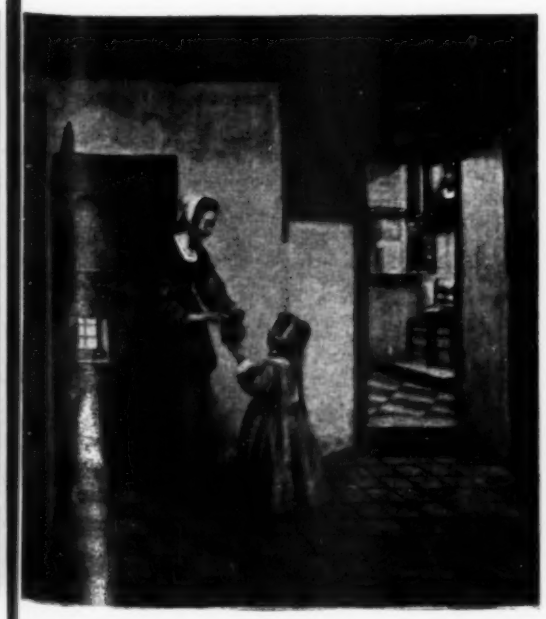
MINIATURE COLOR REPRODUCTIONS

Use these miniatures and the cover picture with the lesson on page 16. See page 65 for other suggestions.



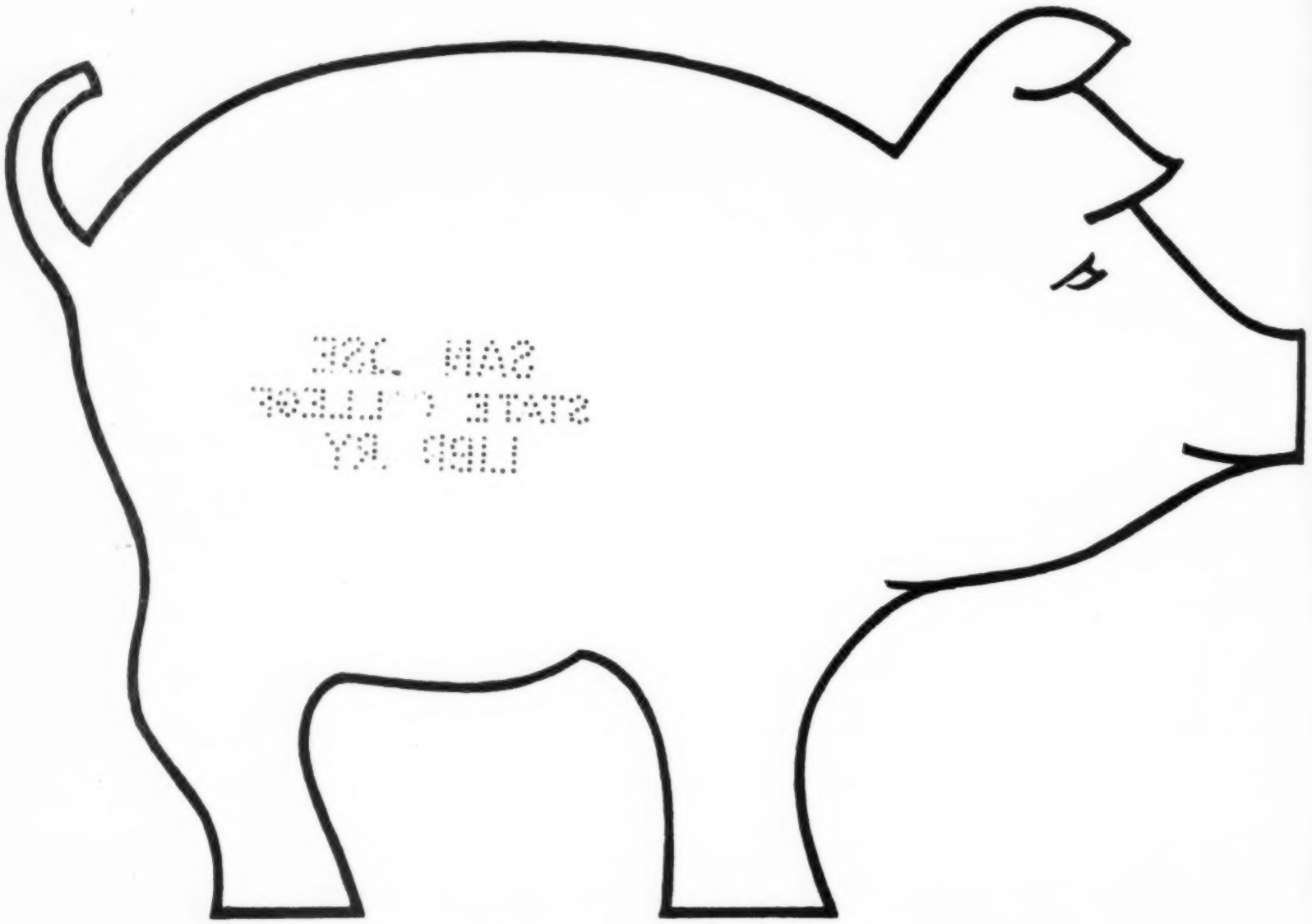
HANDWORK *to Draw, Paint, and Make*

ST. PATRICK'S PIG

FOR ALL GRADES

GLADYS S. SHIRES

Teacher, Primary Grades, Central School, Oxford, New Jersey



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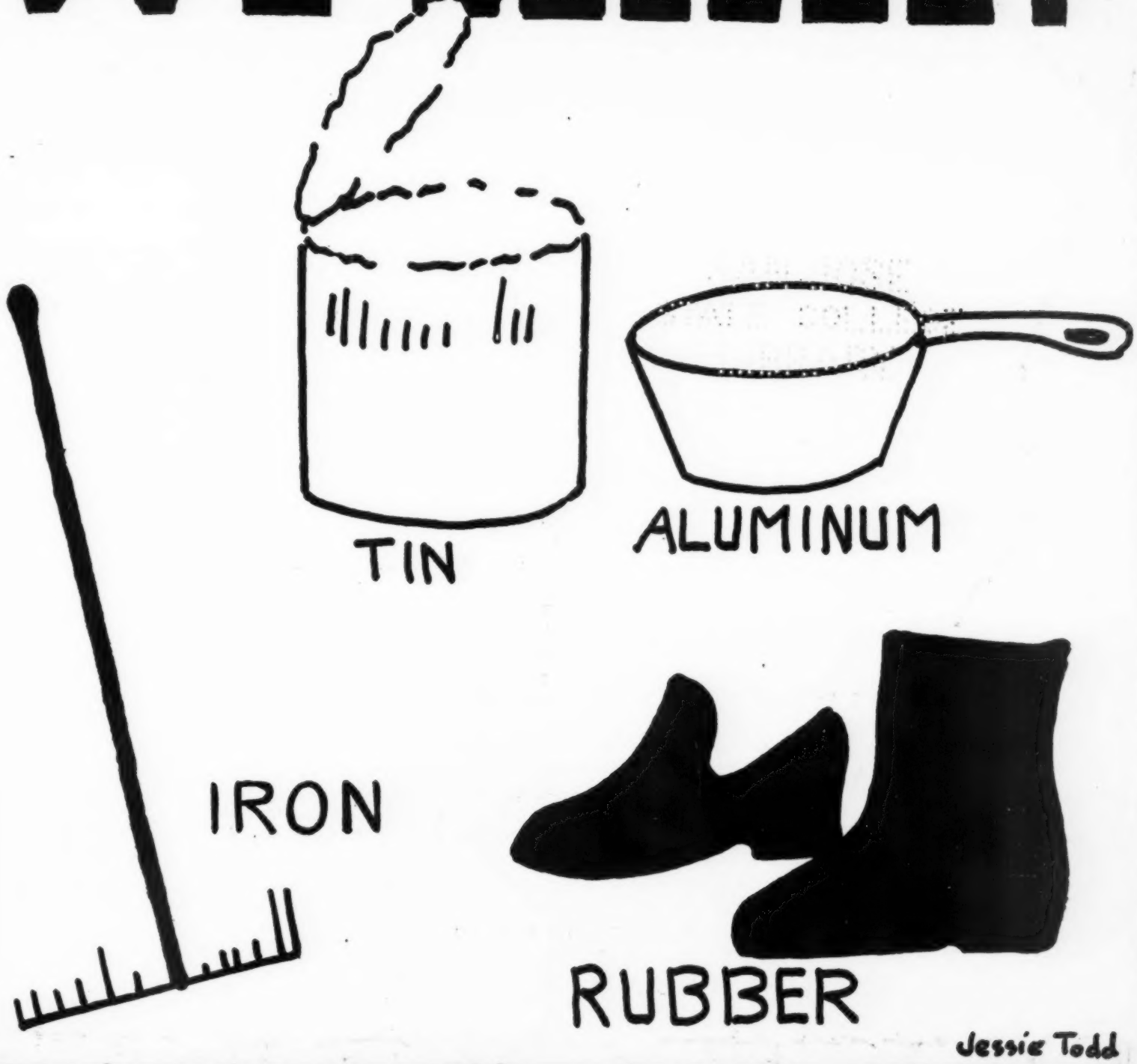
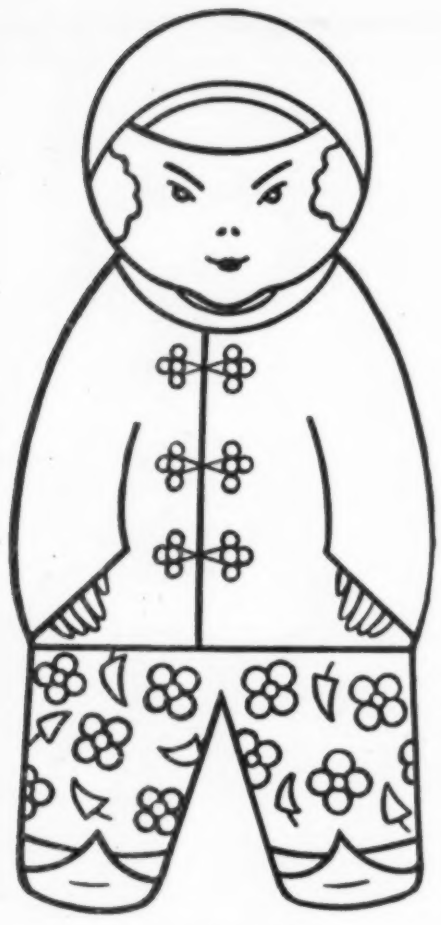
AMONG popular symbols of St. Patrick's Day are the shamrock and the pig. The pig represents the years St. Patrick spent in Ireland as a young boy watching his master's swine. To make colorful decorations using these symbols, draw a pig twice on pink construction paper, 9″ x 12″, cut, and paste together the upper halves of the two pieces. Draw eyes, nose, and mouth with black crayon. Spots may be added if desired. Spread the lower halves so that the pig will stand on four legs. From green paper, 3″ x 4″, cut two shamrocks like those in the border below but with longer stems. Make a slit in the pig's mouth and insert one stem from each side. Curl the stems before inserting them.

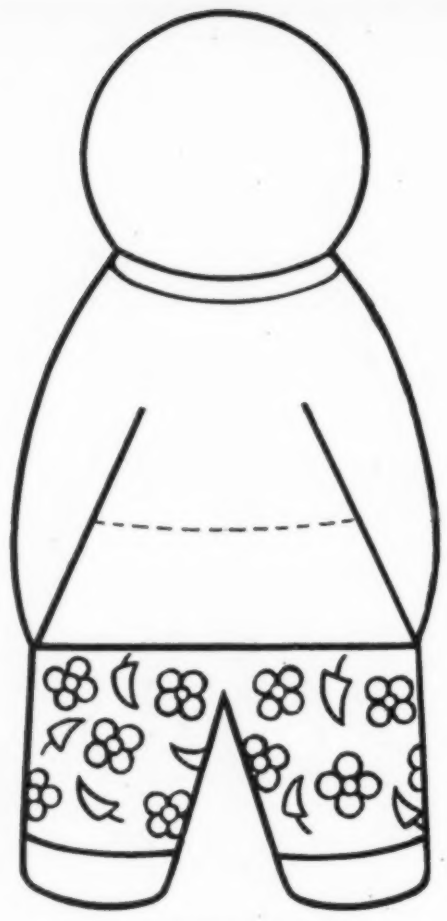
WE HELP TOO
WE COLLECT



See page 65 for suggestions for using this poster.

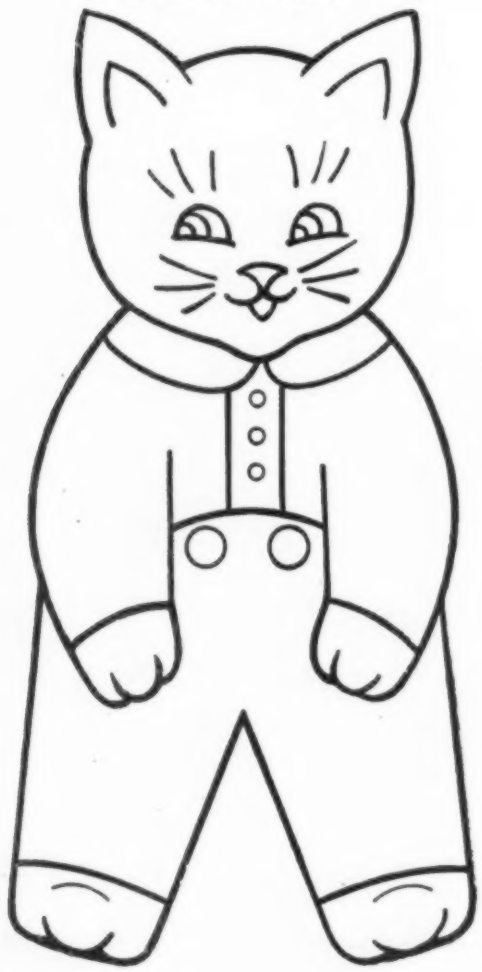


CHINESE GIRL
FRONT VIEW

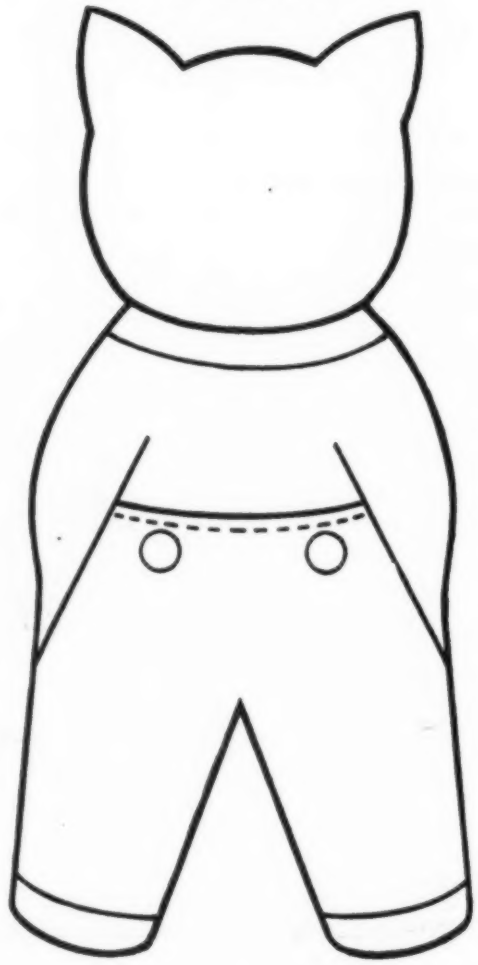


CHINESE GIRL
BACK VIEW

KITTEN
FRONT VIEW



KITTEN
BACK VIEW



FINGER PUPPETS

FOR ALL GRADES

ELIZABETH OBERHOLTZER

Formerly, Teacher, Third Grade, Public Schools, Milroy, Pennsylvania

IT IS fun to enact stories and to play games with these colorful finger puppets. Make a puppet theater in which to stage some plays, or make enough puppets to give as favors at a party.

Draw the front and back pattern of each figure on white cambric or unbleached muslin. Color the clothing and the features with wax crayons, remembering to press hard enough to cover the material well with the crayon. Place the cloth, colored side downward, on several thicknesses of plain newsprint and press with a hot iron. Cut out around the figures, allowing for

PIG

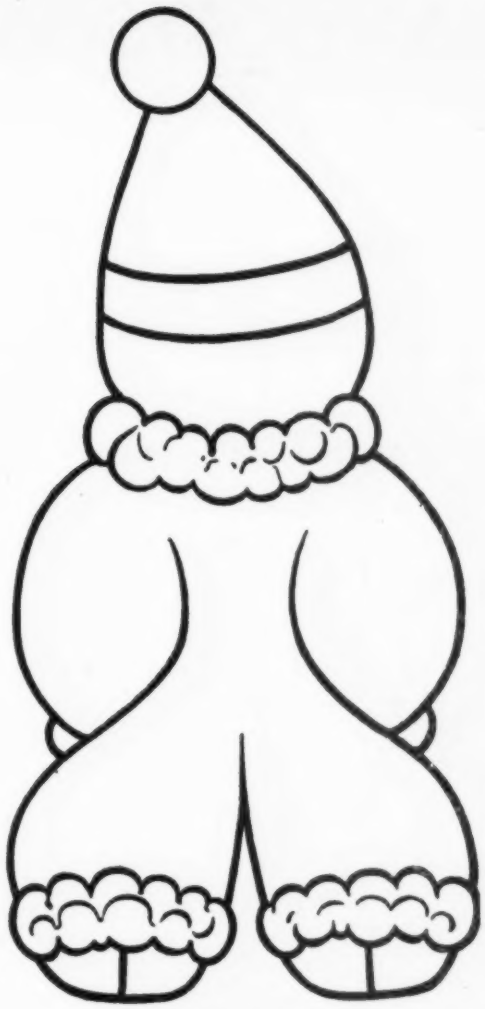
a margin of ⅛ inch all around for a seam. Cut across the back of the puppet. (See the dotted line in the Chinese figure, page 38.) Turn in the raw edges and stitch. Place the colored sides of the front and back of a figure together and stitch near the edge on the wrong side. Then turn the figure inside out. Stuff the head and shoulders with a thin layer of cotton batting.

Insert the index and middle fingers in the legs through the slit in the back. By moving the fingers, make the puppet walk, run, hop, skip, jump, and dance.

HOW TO MAKE DOLLS

To make a soft, cuddly doll for a baby sister or brother, enlarge the pattern to the size desired. Do not cut on the dotted line at the back of the figure. Instead, leave an opening along one side, when stitching the front and back together, to allow for turning the figure inside out. Stuff the entire doll with cotton, working the material well out to the edges so that the figure will be full and round. Sew up the side opening neatly. These dolls may be washed in lukewarm water with a mild soap and still retain their shape and brilliant colors.

CLOWN
FRONT VIEW



CLOWN
BACK VIEW

SAILOR
FRONT VIEW

SAILOR
BACK VIEW

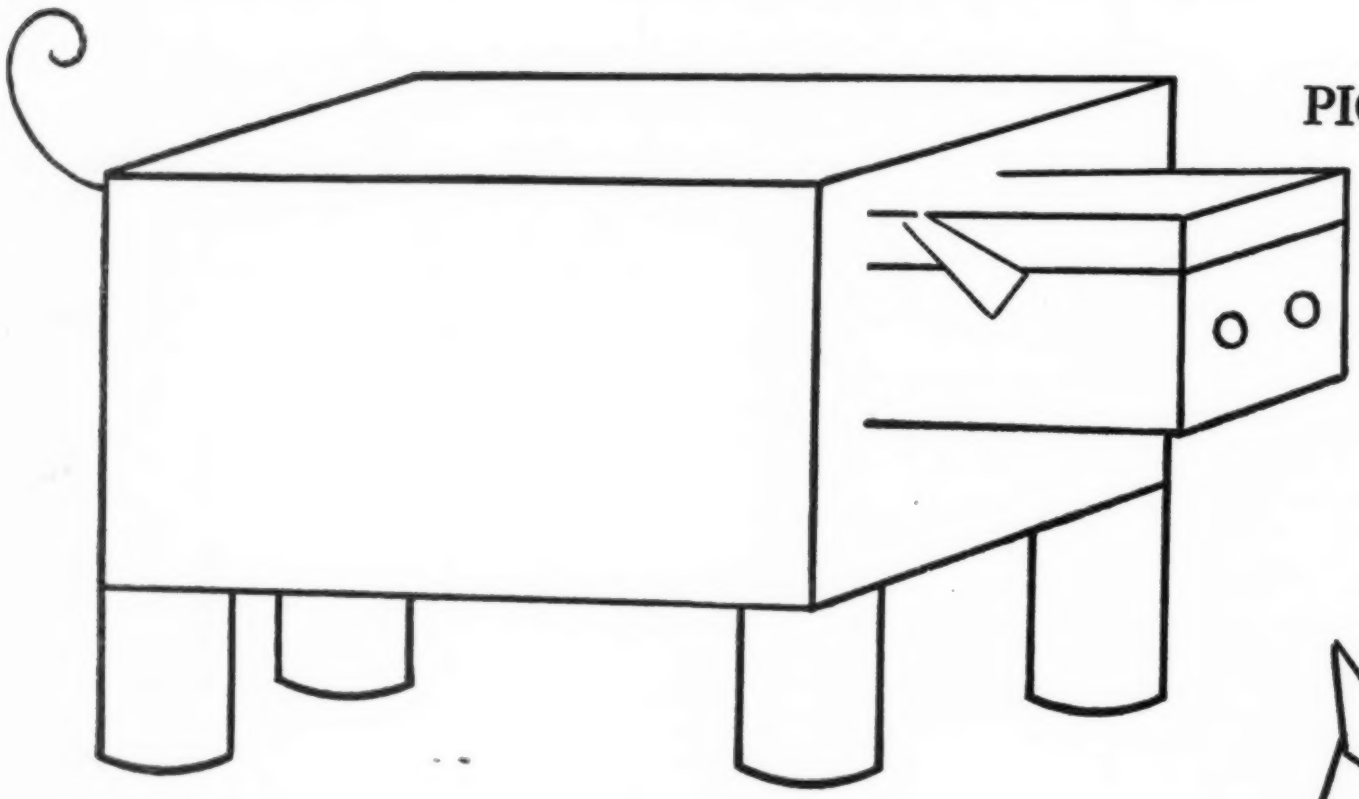
INDIAN

ANIMALS MADE of CARDBOARD BOXES

FOR PRIMARY AND MIDDLE GRADES

LENNICE C. EYRAUD

Formerly, Supervisor of Art and Visual Education, Public Schools, Bakersfield, California



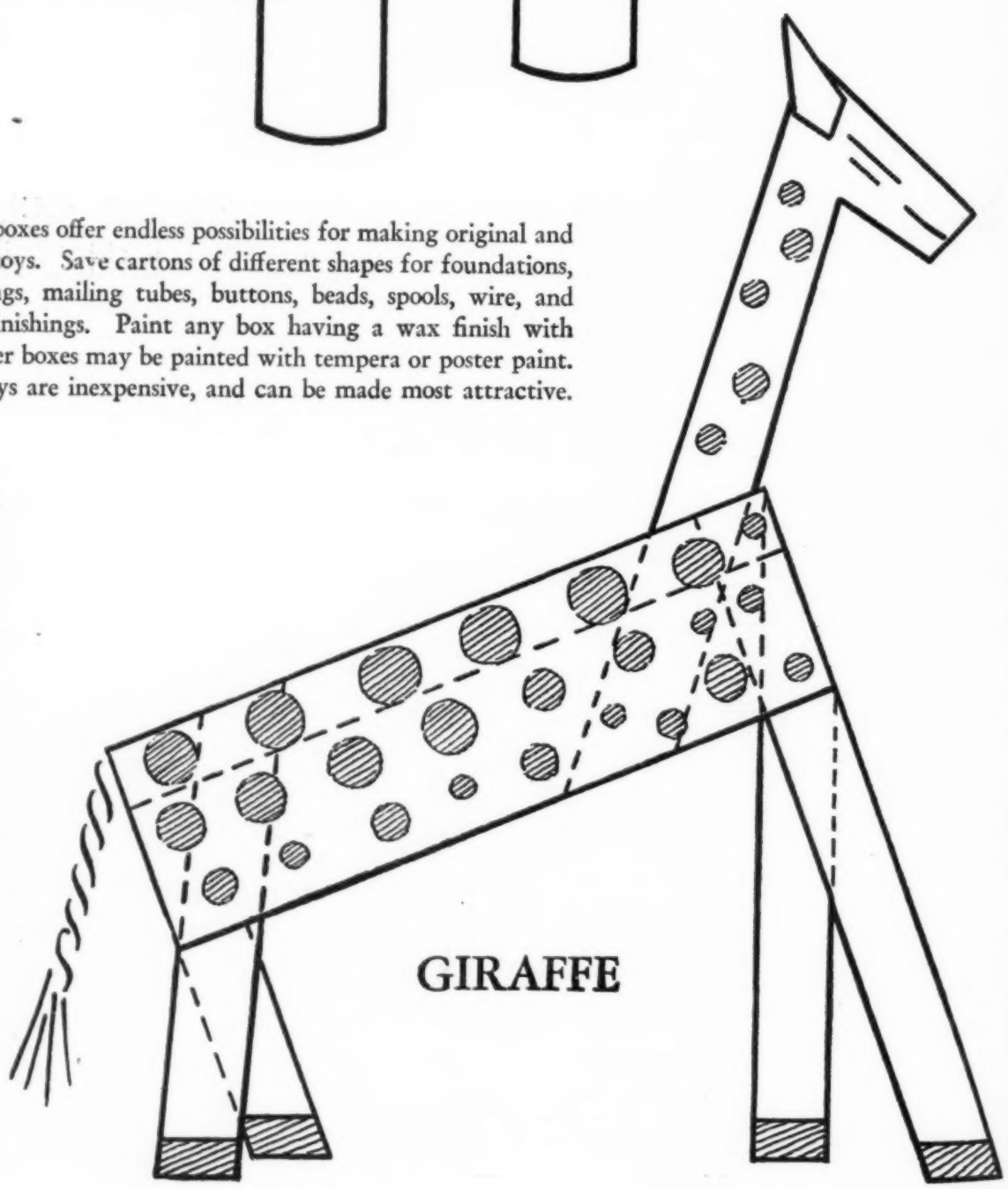
PIG

CARDBOARD boxes offer endless possibilities for making original and clever animal toys. Save cartons of different shapes for foundations, and paper wrappings, mailing tubes, buttons, beads, spools, wire, and pipe cleaners for finishings. Paint any box having a wax finish with enamel paint. Other boxes may be painted with tempera or poster paint. These cardboard toys are inexpensive, and can be made most attractive.

THIS pig is made from two pasteboard boxes, one considerably larger than the other; four empty sewing-thread spools of equal size; curved wire for a tail; and bits of flexible cardboard for ears. Glue a spool at each corner of the large box, to make the feet. Hold one end of the small box against one end of the large box, and draw around it with a pencil. Cut out this opening and push the small box partly into it.

With crayon draw two eyes on the projecting end of the small box. Cut two ear-shaped pieces of cardboard and glue them to the head. At the other end of the large box insert the tail. Paint the pig.

For the giraffe, you will need a shoe box, four mailing tubes, some heavy cardboard, and some yarn. Cut the tubes, for the legs, the desired length, the front legs longer than the hind ones. Slant the ends of each tube to make them fit smoothly against the inside of the lid, and stand firmly. Mark the position of the legs on the bottom of the box, cut the holes, insert the legs, and glue them. Cut the head and neck from one piece of cardboard, slanting the lower end of the neck. Cut a slit in the center of the lid near one end. Push the neck through the slit until it touches the bottom of the box, and glue it. Glue the yarn tail and two cardboard ears in place. Paint the toy.



GIRAFFE

ORANGE-CRATE CHAIRS CAN BE DECORATIVE

FOR PRIMARY GRADES

HELEN ROSS

Teacher, Primary Grades, Public Schools, Columbus, Ohio

Most primary teachers, at one time or another, have found it necessary or advisable to use orange-crate chairs in the schoolroom. These chairs are frequently crude constructions that serve their purpose but add nothing to the appearance of the room.

The chairs described here lose all resemblance to the usual orange-crate variety, yet they are simple enough to be made successfully by first-grade children with the help and guidance of the teacher. Their colorful charm is a delightful invitation to any corner where they might be used.

Figure 1 illustrates the stage of construction at which a chair is generally called complete. The top of the orange crate has been removed and the sides sawed off, five inches above the center dividing board, to form arms. For further support, the top has been nailed to the back of the chair.

With the addition of a gaily colored striped or figured cotton cover, the chair loses its orange-crate appearance. However, since the wear on the edges and corners of the arms and back of the chair would soon cause holes to appear in the cover, they should be carefully padded as illustrated in Figure 2. To make the pads, use any available scraps of cloth. Cut two rectangles for the back, five inches wide and about four inches longer than the width of the chair back, and four rectangles the same size for the arms. Sew together the two pieces for the back along one side and two ends, turn inside out, fill with cotton batting, slip over the top of the back, and thumbtack in place. Do the same with the pieces for the arms of the chair.

Care must be taken to have plenty of cotton in each end of the pad so that no sharp corners can be felt. Thumbtacks should be placed so that the end of each one fits against the head of one on the opposite side, in order to eliminate any sharp points.

A two-yard piece of cloth is needed for the cover. Since crates vary in size, measurements given in this diagram, showing material cut twenty-eight inches wide and seventy inches long, should not be considered exact. This particular plan will be adaptable to the largest-sized crate, and may be made to fit smaller sizes by reducing the width of the back and arm covers enough to make them fit snugly.

Section *A* of Figure 5 represents the cover for the back of the chair. After cutting, as shown in the plan, and folding through the middle, seams are made on each side to within two inches of the end opposite the fold. This end, and the two inches on the sides, are left open so that the cover can be fitted over the chair.

Sections *B* and *C* represent the arm covers. They are made in the same way as the cover for the back.

Sections *D* and *E* represent the parts of the flounce for the bottom of the chair. The ends of *D* are sewed to the ends of *E*, and the bottom is finished with a small hem or raveled out to make a fringed edge. The latter is more satisfactory if young children are to cover the chairs.

Section *F* represents the cushion of the chair. The material is folded in the middle and stitched on all four sides, with the exception of four inches to be left open for stuffing. The cushion may be made from plain material.

Figure 3 shows how the back and arm covers are put on the chair. They have been turned so that the seams are on the inside and slipped over the pads. Because the back and arms of the chair are not attached to each other the covers are easy to slip on. Thumbtacks may be used to fasten down the covers at the junction of the back and seat and the arms and seat.

In Figure 4, the flounce and cushion have been added to finish the chair. To attach the flounce with an even distribution of fullness, slip the flounce over the chair, tack one seam to any corner, and then tack the other seam to the opposite corner. This divides the material into halves. Divide each half in the middle and tack to the two remaining corners. Fold the material along each side of the chair into pleats of equal size, and thumbtack each pleat in place, turning in the edge as you do so. The flounce should be tacked over the loose outside edge of the back and arm covers. Colored thumbtacks are effective for this final finishing.

The cost of these chairs is more than that of painted chairs, but with careful padding they may be used for three or four years. Covers may be removed easily and laundered so that they remain fresh-looking as long as they are in use. Scraps of cloth, and cotton for padding, may be brought from home by the children to reduce the cost. Brightly colored oilcloth may be used and is easy to keep clean. The attractiveness of the covered chairs and the joy of the children who use them will more than make up for the additional expense.

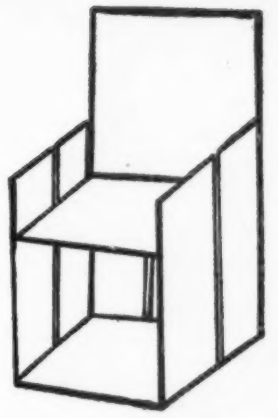


FIGURE 1

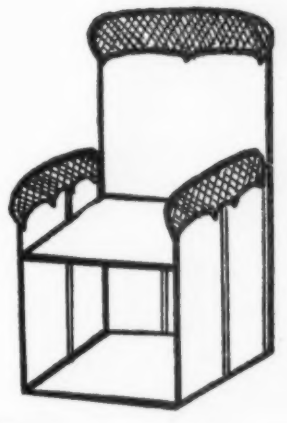


FIGURE 2

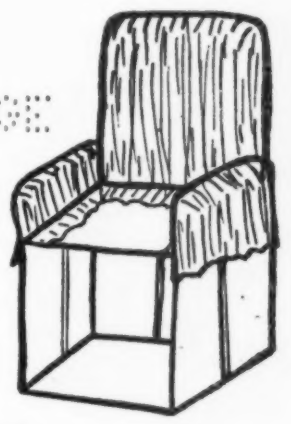


FIGURE 3

FIGURE 5. Plan for Cutting Material
Cut on solid lines and fold on broken lines.

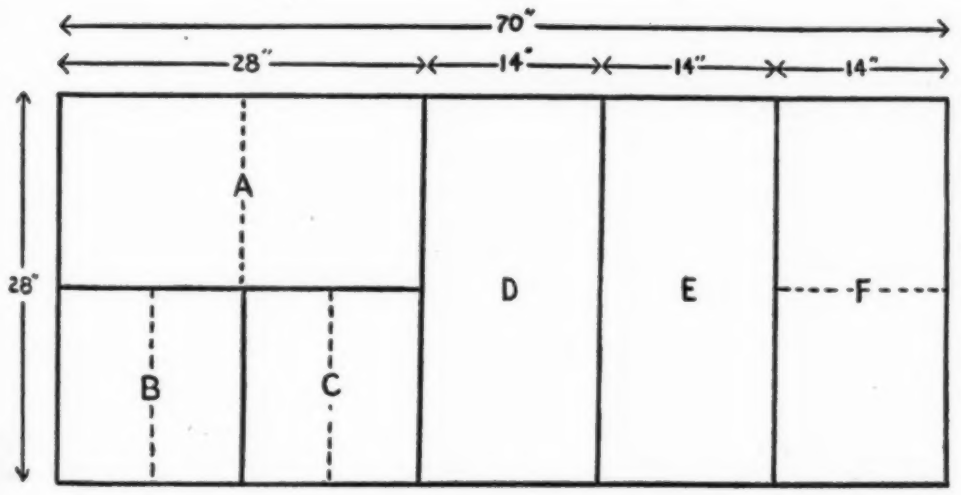


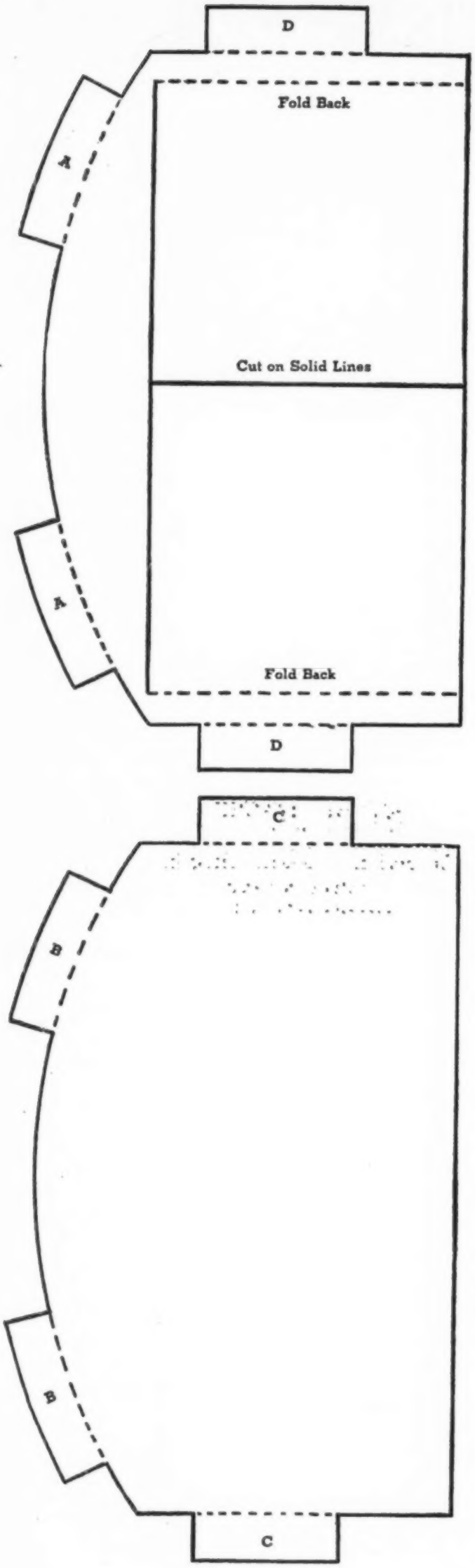
FIGURE 4

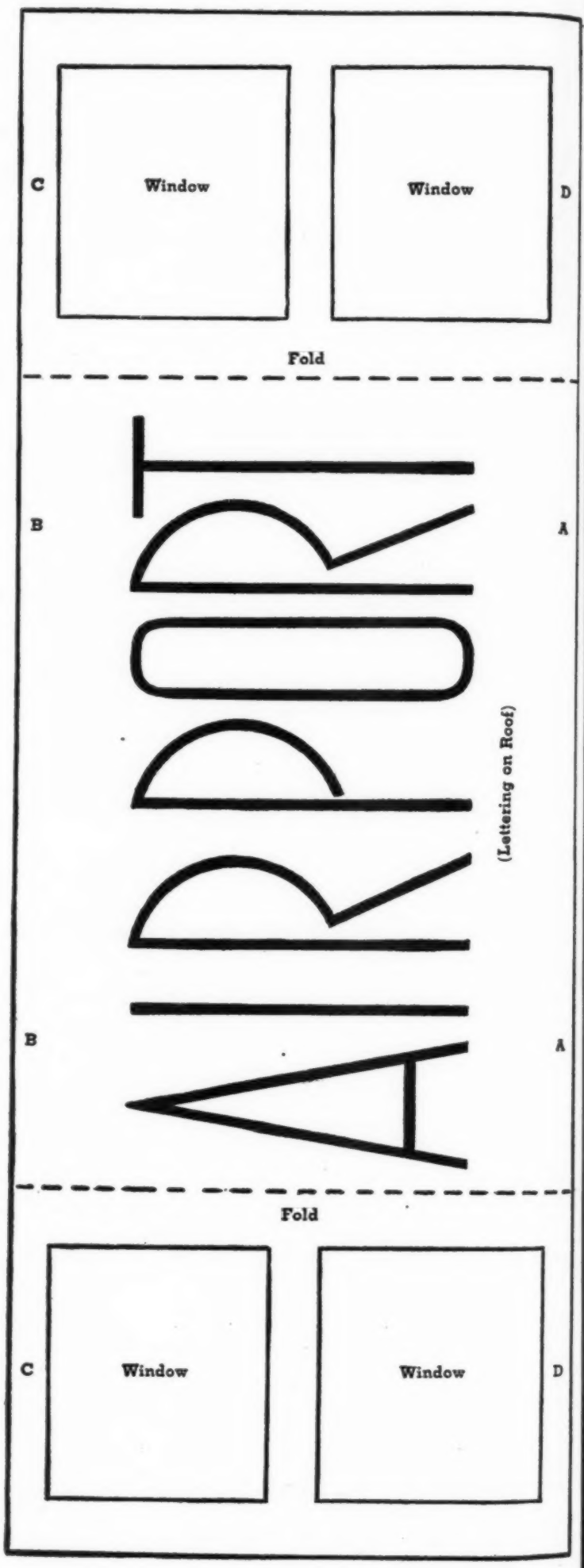
A TABLE AIRPORT

FOR ALL GRADES

DOROTHY H. GRIMM

Teacher, Fifth Grade, P.S. No. 133, Brooklyn, New York



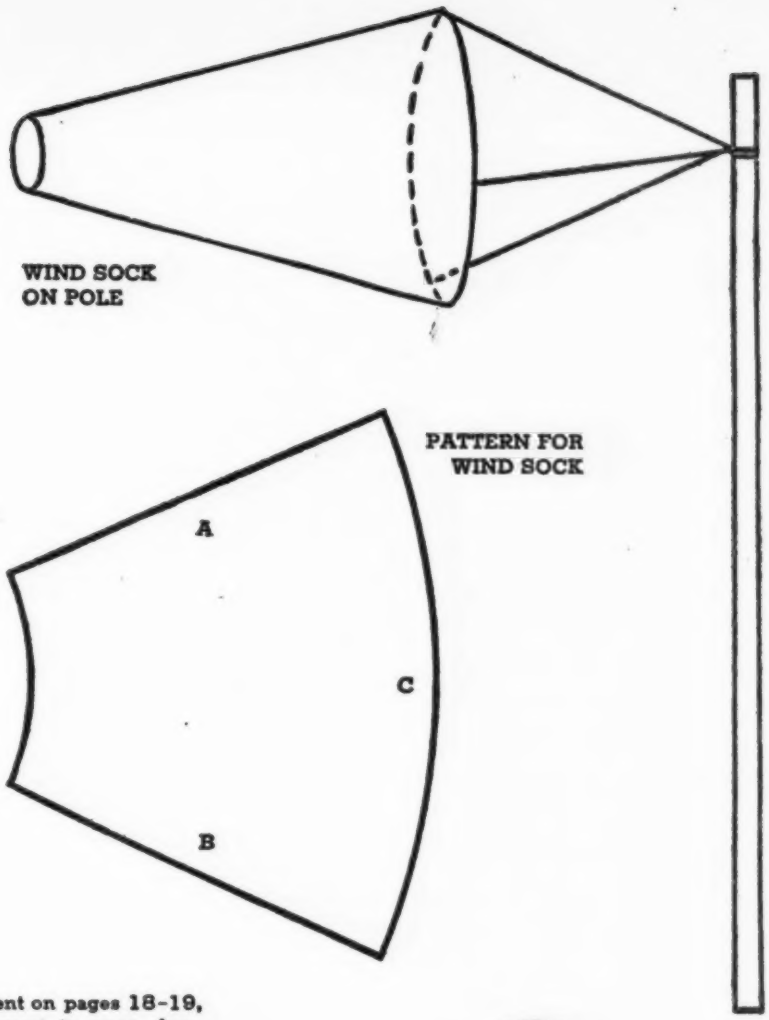


TO BUILD . . .

CHILDREN can become familiar with the general plan of an airport by constructing this table model. All patterns shown here can be used in the size drawn with the exception of the runways and aprons. These should be enlarged so that they reach nearly to the corners of the table. Using tagboard, cut out several hangars by following the diagrams on page 42. Letter the word *AIRPORT* on the roof and cut or paint the windows, before folding the roof and sides of the building. Fold the tabs on the dotted lines of the front and back walls of the building, match the sides and roof with the front and back according to the letters, and glue the tabs to the inside of the roof and side walls. (The roof will be rounded, not flat.)

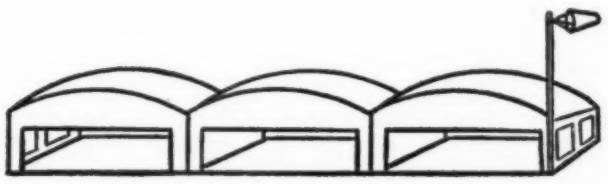
Cut the wind sock out of white paper and paste the edges *A* and *B* together. Fasten the wind sock to a pole by wires attached near the top of the pole, and to several places along *C*.

Cover the top of the table with green paper. Cut the runways and aprons out of white cardboard. Put several hangars side by side next to the aprons. Set up the wind sock near one of the hangars. To complete the airport, you can make several gliders of different sizes and colors, following the pattern given in the January 1943 issue of THE INSTRUCTOR. Paint license numbers and insignia on them and arrange them on the runways and aprons, and put a few in the hangars.

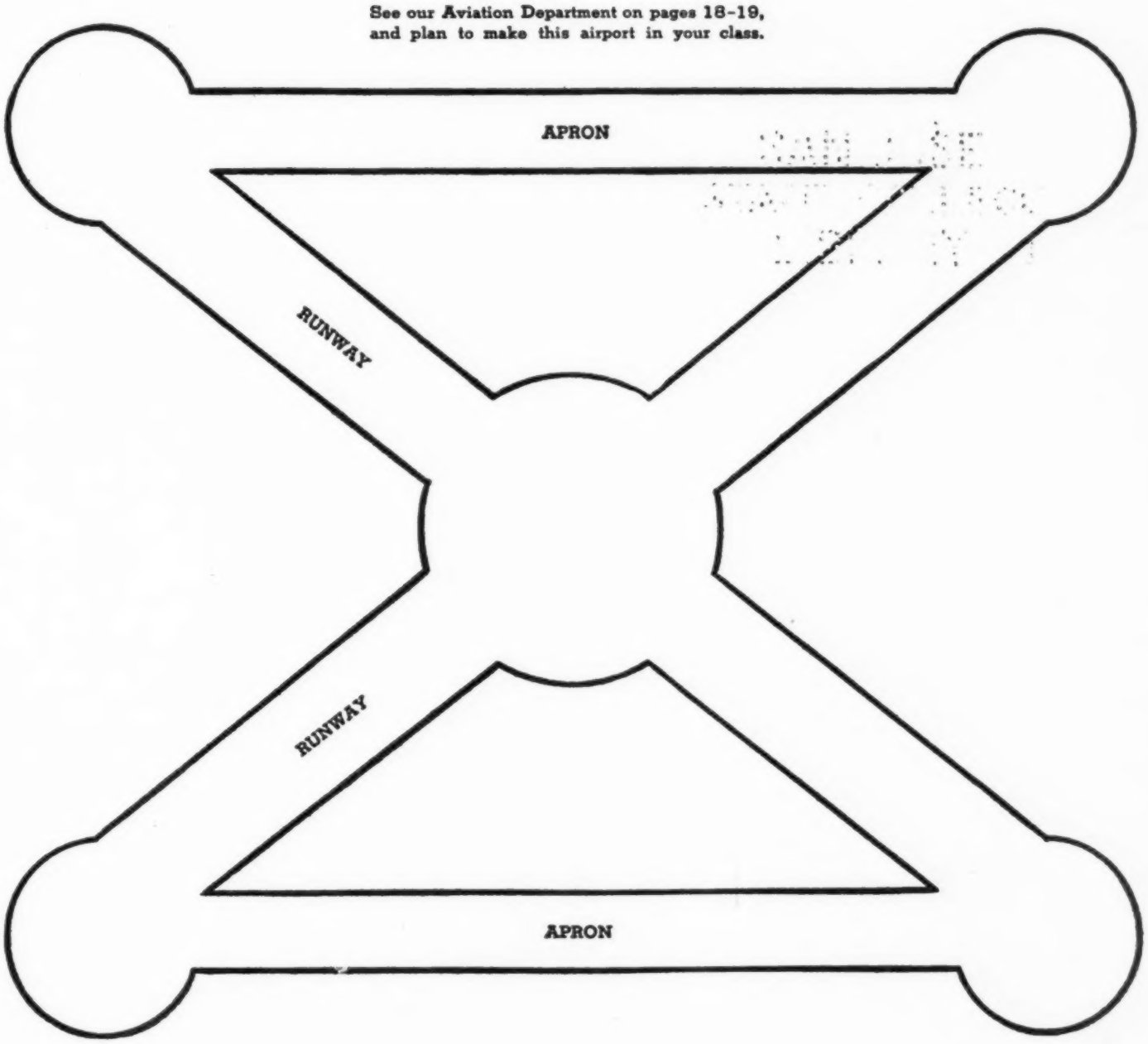


WIND SOCK ON POLE

PATTERN FOR WIND SOCK



See our Aviation Department on pages 18-19, and plan to make this airport in your class.



STEP DRAWINGS OF ANIMALS

FOR PRIMARY GRADES

JESSIE TODD

Supervisor of Art, University Elementary School, University of Chicago

FROM observing children as they draw, we conclude that six- and seven-year-olds everywhere draw alike. There is, however, a difference between the drawings of the six-year-old and the seven-year-old child. The child of six reduces a drawing to its lowest terms. He omits all details except those which are needed to make a dog look like a dog, a cat like a cat, and a mouse like a mouse. The drawings on these pages were made to help him. A child of seven will add more details.

In any drawing, the big lines are most important. This experience in drawing animals with simple lines will lead children to draw all sorts of objects and people by looking for big lines first and filling in details.

The teacher of the first-grade child may help him by calling his attention to certain differences between animals. A cat's head is round and a mouse's head is more pointed. A monkey's tail is long and thin; a dog's is thicker and not so long.

Children of six and seven years always draw from memory. It is foolish to have an animal pose for them because they do not draw that way.

STEP DRAWINGS

Cat.

From a chosen point on your paper swing a slightly curved line upward. Then draw a short line downward, slanting it a trifle to the left.

Add a series of three curves as shown in the next step drawing.

Draw a short line in the second curve for a nose. Add an eye, some whiskers, and suggest the left ear.

Now draw the back and tail.

Draw the right hind leg and the right front leg. Then draw the underpart of the body and suggest the other two legs.

Monkey.

To start the head, draw a curved line upward and to the right, and include the ears.

Finish the head as shown in the second step drawing. Draw a long curved line for the back, and a straight horizontal line for the lower part of the leg on which the monkey is sitting. Make the long tail curve abruptly at the tip.

Finish the leg and foot as shown in the next step. Beginning with the hook at the end, swing a curved line to the left to complete the tail.

Draw the coconut and the hand holding it.

Draw the face as shown in the small sketch.

Draw the left leg, and the monkey will be complete.

Mouse.

Draw a pointed head made of two curved lines.

Add the ears, the eye, the mouth.

Draw a curved line for the back. Draw a line nearly horizontal for the front leg.

Finish the mouse as shown in the fourth step drawing.

Dog.

When you begin to draw the dog, use very light lines so that you can erase them if necessary.

First draw a sharply curved line for the top and back of the head.

Then at the left join to it a shorter curved line for the nose.

Add another sharply curved line for the front of the face and mouth.

Complete the head by drawing a line, to form the lower jaw and throat, finishing the ear and the nose, and adding the eye.

Now draw a long curved line for the front of the dog, and continue it to make the left foreleg. Draw another long curved and slanting line for the dog's back.

Continue the line of the back to make the tail; bring that line forward and, without lifting the pencil, draw the curved lines that form the left hind leg.

Goose.

Draw a curved line something like a semicircle.

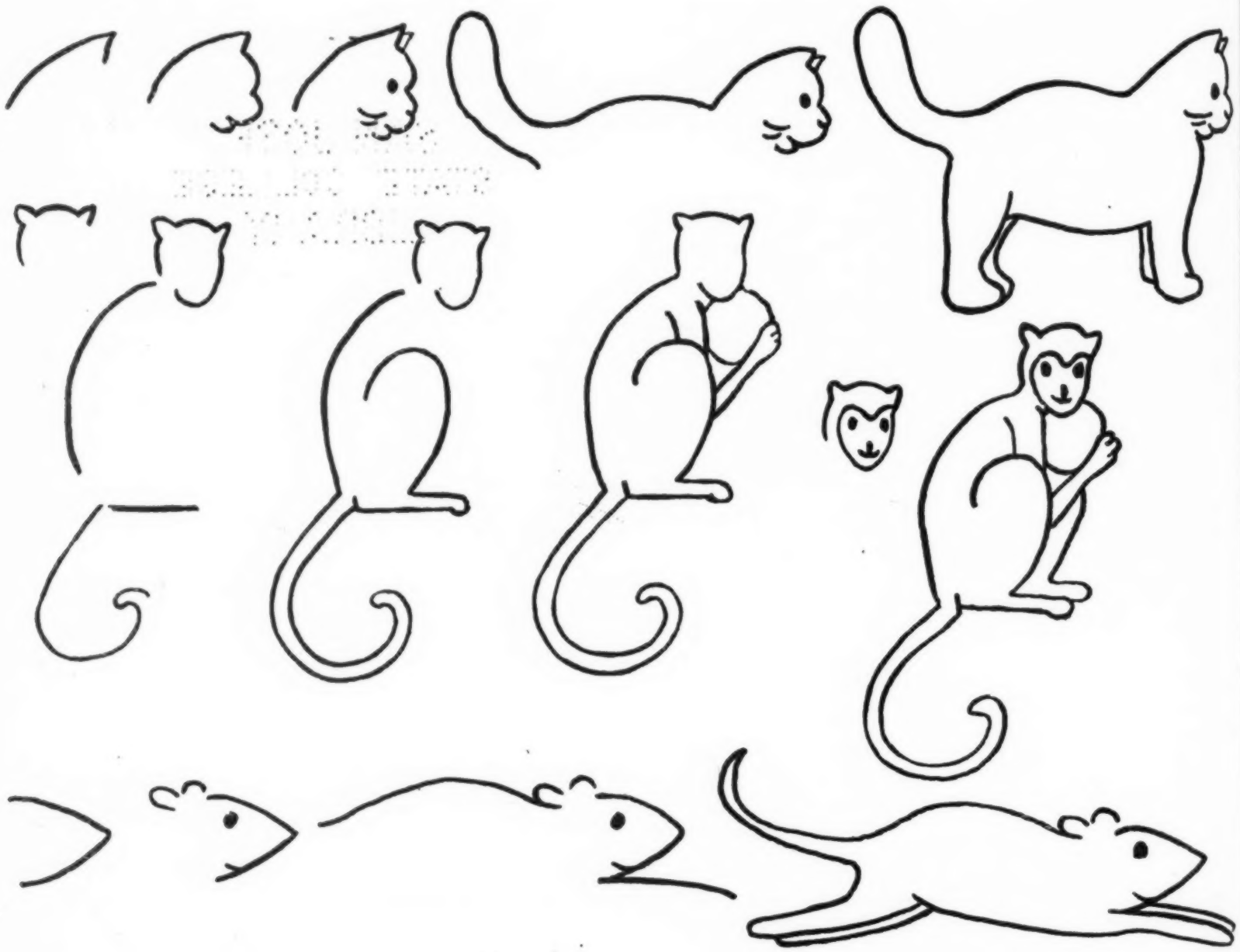
Add the outline of the bill.

Complete the bill and draw the eye.

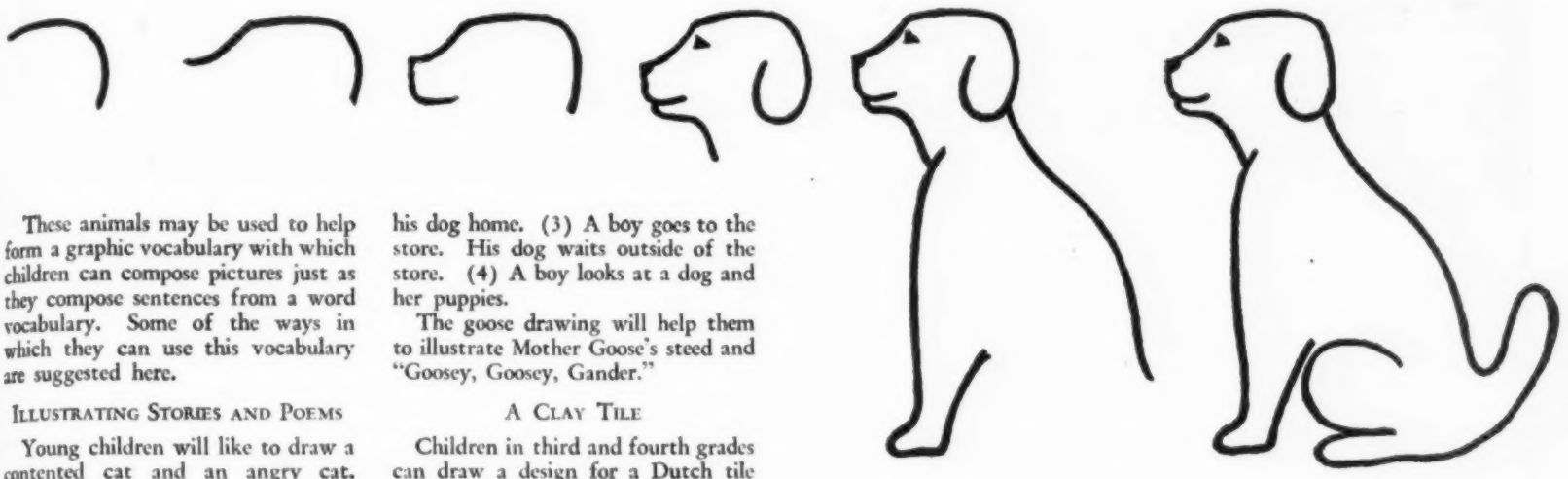
Draw a long curved line for the front of the goose.

Add a line for the back of the neck. Draw the left leg and webbed foot.

Draw the back of the goose and the right leg and foot.



AND HOW TO USE THEM . . .



These animals may be used to help form a graphic vocabulary with which children can compose pictures just as they compose sentences from a word vocabulary. Some of the ways in which they can use this vocabulary are suggested here.

Illustrating Stories and Poems

Young children will like to draw a contented cat and an angry cat. They will like to draw a cat and her kittens. They are very enthusiastic about drawing the three little kittens who lost their mittens, and they can illustrate "Pussy-cat, Pussy-cat, Where Have You Been?"

The monkey shown here will help children to draw pictures of monkeys in a zoo. The story of "A Monkey in a Crow's-Nest," the story called "The Zoo Keeper and the Monkey," and the one entitled "The Monkey Wants His Tail" may be illustrated.

First-grade children may use the mouse, or rat, drawing to illustrate "This Is the House That Jack Built." Another story they like is "The Cat and Mouse in Partnership."

Children in the third and fourth grades will like to illustrate "The Pied Piper of Hamelin," by Robert Browning, and draw crowds and crowds of rats. As they draw these quickly—many, many rats—their drawings are full of movement and expression and freedom.

There are numerous dog stories which they like to illustrate. A popular poem to illustrate by drawing a dog is "Mother Hubbard and Her Dog."

The dog will be useful in many pictures featuring boys. (1) A boy goes fishing; his dog goes with him. (2) A boy goes to school and sends his dog home. (3) A boy goes to the store. His dog waits outside of the store. (4) A boy looks at a dog and her puppies.

The goose drawing will help them to illustrate Mother Goose's steed and "Goosey, Goosey, Gander."

A Clay Tile

Children in third and fourth grades can draw a design for a Dutch tile with windmills, tulips, and geese. The geese may be drawn walking down a road in single file. Some child may draw one big goose so large that the head almost touches the top of the space and the feet the bottom. A small windmill may be drawn behind the big goose or a small goose may be drawn in the background. Lines may be drawn to show that the goose is standing on a road. The road may be winding through a bed of tulips.

Then the children can model a tile out of clay that hardens. When the tile is dry, the design may be drawn on it and painted with tempera paint. It may then be shellacked.

This color scheme is very effective in a Dutch tile: white goose with yellow bill and feet, red and yellow tulips, yellow-green grass, and red or blue windmill.

Modeling Subjects

The cat may be modeled of clay. Because its two front feet are close together and likewise its two hind feet, the clay cat will stand up and not break easily. The tail may be modeled to the body to make the whole more solid. The dog may be modeled and painted with spots of a contrasting color.

Some children will like to model the cat or the dog lying down, curled up on a rug. They like to model the rug, too, and paint it many colors.

They like to model "The Gingham Dog and the Calico Cat." Every child in the class can do something original with this subject. Be sure the children know what calico is like.

The goose may also be modeled of clay, if the legs are made thicker and the feet larger, and a base of clay is put under the feet.

Articles Made of Cloth

Any one of these animals may be drawn in crayon on a beanbag for young children to play with, or it may be drawn on cloth and made into a holder to be used in the kitchen. An animal may be cut out of cloth and sewed on a child's bib. A child's pillow could have one or more of these animals appliqued on it.

Articles Made of Wood

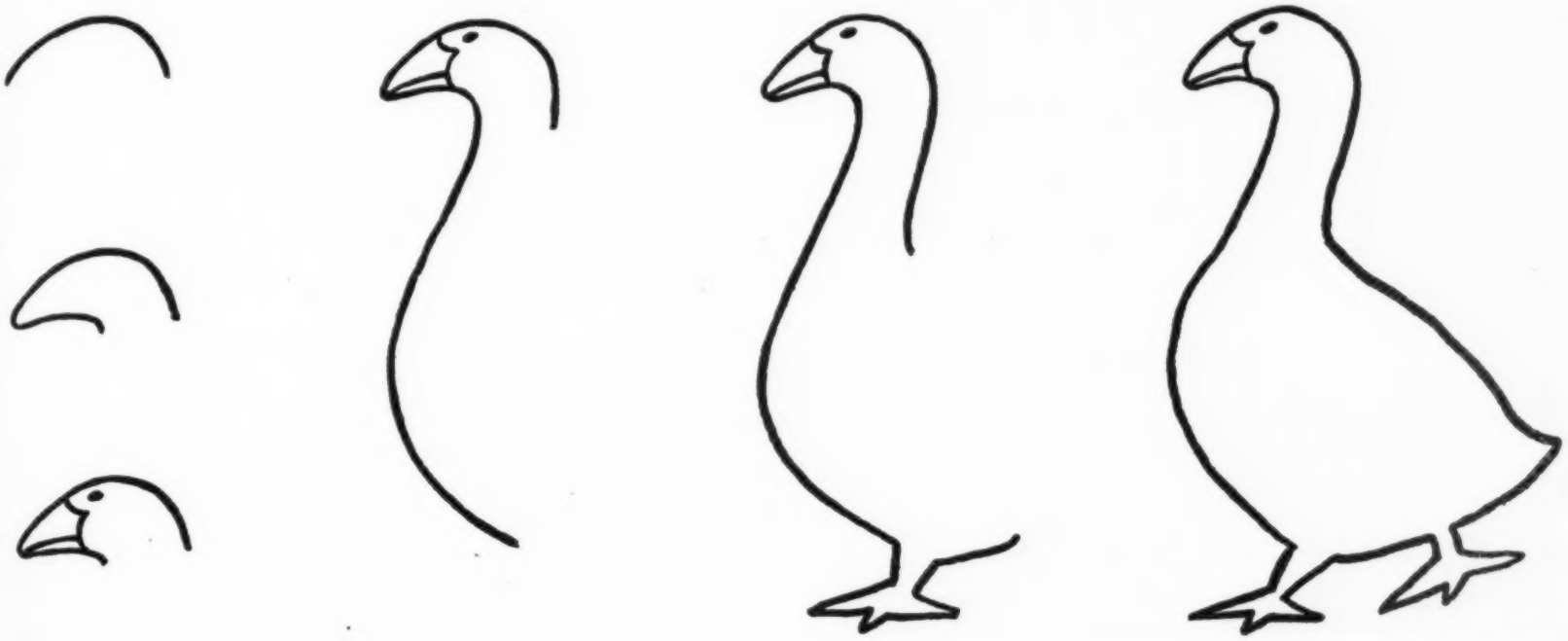
Original drawings of animals can be traced on plywood (or tagboard or cardboard) and cut out perhaps by a manual-training class. These animals can be painted and used as stick puppets. Or, by fastening them to wedge-shaped pieces of wood, they can be made into doorstops. Mounted on plain rectangles of plywood, they become wall plaques for a child's room.

Design Problems

Border designs for arithmetic and spelling papers in the second grade may be made by drawing many running mice or rows of geese.

A good design problem for pupils in grades two, three, and four is that of drawing a tropical jungle scene with many imaginary ferns, bushes, berries, monkeys, and birds painted in brilliant colors.

Editorial Note: "A Monkey in a Crow's-Nest" is in *Near and Far*, by Nila Banton Smith, published by Silver, Burdett and Co., New York. "The Zoo Keeper and the Monkey" is in *Susan's Neighbors at Work*, by Paul R. Hanna and others, published by Scott, Foresman and Co., Chicago. "The Monkey Wants His Tail" is in *Down Our Street*, by Artnur I. Gates and others, published by The Macmillan Co., New York. "The Cat and the Mouse in Partnership," a Grimm tale, is in *A World of Stories for Children*, by B. H. Clark and M. Jagendorf, published by The Bobbs-Merrill Co., Indianapolis. "The Pied Piper of Hamelin," by Robert Browning, is in *Story and Verse for Children*, by Miriam Blanton Huber, published by The Macmillan Co., New York. "Goosey, Goosey, Gander" is in *Tiny Tot's Favorite Mother Goose*, by Peter Mabie, published by The Merrill Pub. Co., Chicago. "The Gingham Dog and the Calico Cat," is in *Poems of Childhood*, by Eugene Field, published by Charles Scribner's Sons, New York. All the other poems or stories mentioned in this article may be found in *Children's Literature*, by C. M. Curry and E. E. Clippinger, published by Rand McNally Co., Chicago.



OUR CONSTITUTION POSTER

THE BILL OF RIGHTS

THE FIRST TEN AMENDMENTS TO THE CONSTITUTION

AMENDMENT VII

ASSURES

THE RIGHT OF TRIAL BY JURY IN CIVIL CASES WHERE THE AMOUNT IS MORE THAN TWENTY DOLLARS

THIS AMENDMENT READS:

In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

SUGGESTIONS

What is the difference between this and Amendment VI? Define "civil" and "criminal"; and make a poster on civil rights.

RALPH AVERY

PROGRAM *Material*

OUR FLAG SALUTE

MUSIC BY EVERETT JOHNSTONE EVANS
WORDS BY ELIZABETH CLARK

8 va
f Rat - tat - a - tat, Rat - tat - a - tat, Rat - tat - a - tat - tat - tat.
Time for the Flag Sa - lute; Rise for the Flag Sa - lute;
Stand straight and tall; With clear voi - ces all Join in the Flag Sa - lute. (Repeat Flag Salute.)
Drums, Drums, Proud - ly sound! Ech - o the words the world a - round,
"Lib - er - ty, jus - tice," Prom - ised to all— Our splen - did Flag Sa - lute!

TWO PRIMARY PROGRAM NUMBERS

Fighters for Freedom

SARAH KRIMSKY

Permanent Substitute Teacher, P.S. No. 97, Brooklyn, New York

Are you looking for a way to stimulate the sale of War Stamps among your pupils? Here is a rhythmic, easy-to-produce dramatization that is climaxed by actual sales.

(Some children are playing a singing game. Another group is talking. One child throws tin foil on the sidewalk.)

POLICEMAN *(entering, sees the child throw away the tin foil)*—Don't throw away that tin foil. Don't you know it's needed in the war?

CHILDREN *(incredulously)*—That piece of paper?

POLICEMAN—Yes. In this fight, we mustn't waste a thing.

FIRST CHILD—What are we fighting for?

POLICEMAN—We are fighting for freedom for everybody in the world.

(The remaining characters except War Stamps and War Bond march in and form a line across the stage.)

SOLDIER *(saluting)*—I am a soldier. I fight on the land.

SAILOR *(saluting)*—I am a sailor. I fight on the sea.

AVIATOR *(saluting)*—I am an aviator. I fight in the air.

MARINE *(saluting)*—I am a marine. I fight on land and sea.

POLICEMAN—But there are other fighters too.

FARMER—I am a farmer. I am doing my part for the war by raising food for victory.

DOCTOR—I am a doctor. My part is to help people keep well.

AIR-RAID WARDEN—I am an air-raid warden. I am ready to assist people in time of danger.

FACTORY WORKER—I am a factory worker. I help the war by working at machines.

TEACHER—I am a teacher. I help by teaching children to be good citizens.

MOTHER—And I am a mother. I help by providing my family with food that will make them healthy.

ALL EXCEPT CHILDREN—We are all workers, helpers, fighters, in this fight for freedom. *(Each one in turn names the character he represents.)* The policeman, the soldier, the sailor, the aviator, the marine, the farmer, the doctor, the air-raid warden, the factory worker, the teacher, the mother. *(In chorus.)* We are all fighters for freedom.

SECOND CHILD—Can children fight?

THIRD CHILD—How can *we* help?

TEACHER—Be obedient, be saving, and study hard. When freedom is won, you will be better citizens.

POLICEMAN—Yes, America will always be a fine country, if its children are all good citizens.

CHILDREN—Thank you. Now we know how we may truly help.

FOURTH CHILD—I will save all the scrap I can.

FIFTH CHILD—I will eat everything that will make me healthy.

SIXTH CHILD—I will not waste anything.

SEVENTH CHILD—I will take care of all my clothes.

EIGHTH CHILD—I will work hard to learn all my lessons.

(Drum beats off stage and in come War Stamps and War Bond.)

WAR STAMPS *(together)*—
We are the stamps that you must buy
If you wish to keep our flag high.
Save your pennies, nickels, and dimes
If you want to hear the Victory chimes.

25-CENT WAR STAMP—I sell for a quarter.

10-CENT WAR STAMP—And I sell for a dime.

WAR BOND—And I am the bond you will have in time.

WAR STAMPS AND WAR BOND—
Buy us, buy us, and end the war,
So you can have what you're fighting for. *(Louder.)*
Peace, Liberty, Democracy!

(War Stamps and War Bond march around, singing an appropriate song. The rest of the cast join in the song as War Stamps sell real stamps to the actors. Then all march off.)

EDITORIAL NOTE: This play was written by the pupils of Grade 2B2 under Miss Krimsky's supervision. An appropriate song for the end of the play is "What We Can Do," published in the April 1942 issue of THE INSTRUCTOR.

CHARACTERS

CHILDREN—Eight or more.
POLICEMAN
SOLDIER
SAILOR
AVIATOR
MARINE
FARMER
DOCTOR
AIR-RAID WARDEN
FACTORY WORKER
TEACHER
MOTHER
25-CENT WAR STAMP
10-CENT WAR STAMP
WAR BOND

COSTUMES

War Stamps and War Bond wear school clothes and carry posters. One shows a 25-cent stamp, one a 10-cent stamp, and one a bond. The other characters are dressed as their roles indicate.

SETTING

A street scene.

Whom to Thank

CLEMENTINE B. SIMKINS

Formerly, Kindergarten Teacher, P.S. No. 202, Brooklyn, New York

There is opportunity in this play to impart to children a real spirit of thankfulness. In the midst of present-day conditions, gratitude for good must be expressed.

SCENE I

(The children and the teacher are seated at a table, having their mid-morning snack of milk and cookies.)

TEACHER—Children, do you like cookies?

CHILDREN *(in chorus)*—Oh, yes!

TEACHER—Then we ought to be thankful that we have them.

CHILDREN *(in chorus)*—Oh, we are.

TEACHER—That's right, and each morning when we say our little prayer before we eat we are thanking God for everything.

MARY—For the cookies, too?

TEACHER—For the cookies, too.

SCENE II

(The dishes have been cleared away and the children are talking things over.)

MARY—Weren't those cookies delicious?

JOHN—Yes, they were.

MARY—I think we should thank the storekeeper and tell him how good they were.

JOHN—I'll go and bring him here. *(He goes out and comes back with the Storekeeper.)*

CHILDREN *(cheerily)*—Good morning, Mr. Storekeeper.

STOREKEEPER—Good morning, children.

CHILDREN—We want to thank you for the cookies we had in school today. They were good.

STOREKEEPER—I'm glad you liked them, children, but don't thank me. Thank the baker. He delivered them this morning, fresh from the bakery.

CHILDREN—Well, we'll thank the baker, then.

STOREKEEPER—Good-by, children.

JOHN—I'll go with you and find the baker.

(Both exit, and John returns with the Baker.)

CHILDREN *(smiling)*—Good morning, Mr. Baker.

BAKER—Good morning, children. What can I do for you?

CHILDREN—We wish to thank you for the delicious cookies we had in school today.

BAKER—Did you like them? Well, of course, I baked them, but really and truly, I couldn't have made them without the flour. You see, all cookies and bread and cake are made from flour. Of course, a few other things like milk and sugar and butter and eggs are put in, but flour is always necessary. I think you should thank the miller. He sends me big bags of flour. I'll tell him you want to see him.

CHILDREN—Indeed we do. Good-by, Mr. Baker.

BAKER—Good-by, children.

(He goes out and the Miller enters.)

CHILDREN—Oh, good morning, Mr. Miller. We wish to thank you.

MILLER—Thank me for what?

CHILDREN—For the flour that made the delicious cookies that we ate in school today.

MILLER—Well, that is nice of you and very thoughtful. I'm glad you liked the cookies. They were made of good flour, but do you know where the flour came from?

CHILDREN—Why, the baker said it came from you.

MILLER—Oh, no, children. I only grind the wheat and change it into flour. Inside the little wheat seed is a white kernel. When the wheat is crushed to bits the kernel is mashed to a powder and that becomes flour. But first I need to have the little wheat seeds.

CHILDREN—Where do you get the wheat seeds?

MILLER—From the farmer who grows the wheat.

CHILDREN—Perhaps we ought to thank him.

MILLER—Yes, he is the person to thank. I'll send him to you. Good-by, children.

(He goes out and the Farmer enters.)

(Continued on page 65)

CHARACTERS

CHILDREN—Any number.
TEACHER
MARY
JOHN
STOREKEEPER
BAKER
MILLER
FARMER
WHEAT PLANTS
RAIN
SUN

COSTUMES

The children, including Mary and John, wear regular school clothes. The Teacher, Storekeeper, Baker, Miller, and Farmer wear suitable costumes. Paper cut to resemble a sheaf of wheat, streamers to represent rain, and a gilded cardboard crown for the sun identify the remaining characters, or they may wear name labels.

SETTING

A lunch in the schoolroom.

THE UNITED STATES MARINES

WRITTEN AND ARRANGED FOR RHYTHM BAND BY J. LILIAN VANDEVERE

T.B.
TRI.
R.S.
W.B.
TAM.
DRUM
1.
2.
The men who fight on land to help the Na - vy, Our Ma - rine Corps, Our Ma - rine Corps.
They take a splen - did stand to help the Na - vy, Our Ma - rine Corps, Our Ma - rine Corps. Where du - ty's
call has led, there you see them land. On they go, charg - ing a - head, Tak - ing the bat - tle in hand. Their mot - to is "Ev - er faith - ful,"
And their deeds have shown us clear - ly what it means. All hon - or to the Sol - diers of the Sea, Our U - nit - ed States Ma - rines.

T.B., tuned time bells; TRI., triangle; R.S., rhythm sticks; W.B., wood block; TAM., tambourine. R indicates rap of tambourine; S indicates shake. Cymbals may play tambourine part.

TRIBUTE IN SONG

A Patriotic Play

FOR ALL PUPILS IN ONE GRADE OR IN A SMALL SCHOOL

LOU RICHARDSON

CHARACTERS AND COSTUMES

MRS. WILSON—A newcomer to Millersville. She wears a woman's dress and eyeglasses.

MRS. MCDONALD—Mrs. Wilson's sister. She wears street clothes.

ROGER GREEN—Chief spokesman for the Singers.

SINGERS—Any number of children. The entire grade may participate. They wear outdoor clothing.

BETTY WILLIAMS—One of the Singers.

SPECIAL DELIVERY BOY—Wears school clothes.

SETTING

The action takes place in the living room of Mrs. Wilson's home. The essential furnishings are three or four chairs and a desk or table, on which are a lamp, a photograph of a young man in uniform, and a clock. A hat and two coats are on chairs and a suitcase is in evidence. A knitting bag and two pieces of knitting are used.

(*Mrs. Wilson and Mrs. McDonald are sitting near the lamp. Both are knitting.*)

MRS. WILSON—Martha, I can't begin to tell you how much good your visit has done me. I wish you didn't have to go back to Waverly Junction so soon.

MRS. MCDONALD—I have had such a good time, Jane, and I would like to stay longer, but you know how it is. The children need me.

MRS. WILSON—Yes, I know they do, but it is going to be lonesome without you. With Jimmy gone and his father working such long hours, the house is certainly quiet. It won't be so bad when I get acquainted, but we have been here such a short time and I know very few people. Why, I don't suppose that anyone in Millersville is aware that we have a son in the service. (*She picks up the photograph from the table and looks at it admiringly.*)

MRS. MCDONALD—I know how you feel, Sister, but I'm sure you will find many new friends here.

MRS. WILSON—The thing that's hardest of all to get used to is the silence. You know how it was when Jimmy was at home. He was always whistling or singing. Do you remember how he would bound down the stairs singing "Home on the Range" at the top of his voice?

MRS. MCDONALD—I should say I do! I remember, too, how he would always encourage his friends to sing with him whenever a group were at the house.

MRS. WILSON—Yes, our rafters were always ringing then.

(*Both women knit silently for a moment. Then there is a sound of music, as Singers off stage sing softly a stanza and chorus of "Home on the Range." If there is no stage, they stand together at one side of the schoolroom, to indicate they are serenading the "house."*)

MRS. WILSON (*raising her voice above that of the singing*)—Do you hear that, Martha?

MRS. MCDONALD—Yes, I wonder who is singing. Isn't it strange that just as we were talking about Jimmy's favorite song we should hear it?

MRS. WILSON (*quite excited*)—It's mysterious, that's what it is. I can't understand it.

MRS. MCDONALD—Now don't get excited, Jane. It's probably just a group of young people on their way to a party.

(*By now the Singers have finished "Home on the Range," and are singing "Sweet and Low."*)

MRS. WILSON—"Sweet and Low!" That is another song that Jimmy likes. Who on earth do you suppose is doing the singing? The way they seem to choose Jimmy's favorites is positively uncanny!

MRS. MCDONALD—Well, whoever it is, the voices sound fine.

(*The song ends and there is a knock at the door. Mrs. Wilson goes to the door.*)

ROGER GREEN (*politely, his cap in his hand*)—Is this Mrs. Wilson?

MRS. WILSON—Yes, it is. Won't you come in?

ROGER GREEN (*steps inside*)—Thank you, but there are almost too many of us to get into the house. We are from the Millersville School. Whenever one of the men from our town leaves to go into service for his country, we serenade the family. You haven't lived here long enough for us to know you, but we just want to show you that the girls and boys of Millersville are proud that your son is in the Marines. And so we came to sing for you. I'm Roger Green. The rest of the grade elected me to do the talking.

MRS. WILSON—How do you do, Roger. I think you have decided on a very nice thing to do! Come in, please—all of you.

(*Singers crowd onto the stage, some of the boys forgetting to take off their caps until other children remind them to do so.*)

MRS. WILSON—This is my sister, Mrs. McDonald, from Waverly Junction. She has been visiting me, but she has to go home on the nine-o'clock bus tonight.

(*Singers say "How do you do" or smile. Mrs. McDonald smiles and says, "I am happy to meet you all," or something of the sort by way of acknowledging the introduction.*)

MRS. MCDONALD—Your serenading us like this is one of the nicest ideas I have ever heard about. Won't you please sing something else? I'm sure Mrs. Wilson would like to hear the "Marines' Hymn," the one that begins, "From the Halls of Montezuma to the shores of Tripoli." Since her son is in that branch of the service, I think it would please her if you would sing that particular song.

ROGER GREEN—How about it, gang? Do we know the "Marines' Hymn" well enough to sing it?

(*Singers respond in the affirmative, and then they crowd closely together and sing.*)

MRS. WILSON—Oh, that was fine. Thank you very, very much.

ROGER GREEN (*picking up the photograph*)—Is this your son who is in the service, Mrs. Wilson?

MRS. WILSON—Yes, that's Jimmy.

(*The children crowd around to look at the photograph. Appreciative comments on Jimmy's appearance and uniform are given by various members of the group.*)

ROGER GREEN—Perhaps you both would be interested to know that this is only one of several projects that our school has undertaken in connection with the war.

MRS. WILSON—Really? How splendid! What are some of your other activities?

ROGER GREEN—We are collecting scrap, of course, and we are salvaging rubber clothing, passing on outgrown raincoats and rubbers, and so on, to smaller children.

BETTY WILLIAMS—We girls are making sewing kits to send to men in the service, and knitting afghans.

MRS. MCDONALD—And, naturally, you are buying all the War Stamps you possibly can.

SINGERS (*in chorus*)—Oh, yes!

(*There is a knock at the door.*)

MRS. MCDONALD—I wonder who *that* can be. (*She opens door.*)

SPECIAL DELIVERY BOY (*holding out a letter*)—Special delivery for Mrs. James Wilson. Sign here, please.

MRS. MCDONALD (*signs; comes back and hands letter to Mrs. Wilson*)—It's from Jimmy.

MRS. WILSON (*to Singers*)—Please excuse me a moment. (*She opens the letter and reads contents to herself.*)

Oh, this *is* exciting! Just listen to this! Jimmy has his commission. Would you like to hear what he says?

SINGERS (*in unison*)—Yes! Yes!

MRS. WILSON (*reads*)—"Dear Mom and Dad: This is just a note to tell you that I made it. I have my first shoulder bars and from now on you can call me Lieutenant. The examinations were tough. I guess it's a good thing, Mom, that you kept after me on my arithmetic, or I might never have passed those exams. I'll write more in a day or two. Meanwhile, I certainly could use one of your chocolate cakes by way of celebration. As ever, your loving son, Jimmy."

BETTY WILLIAMS (*laughingly to Roger*)—Did you hear that, Roger? You'll never get to be an officer unless you know arithmetic. (*Aside.*) Our teacher says that Roger seems to be allergic to arithmetic, Mrs. Wilson.

(*Everyone laughs.*)

ROGER GREEN—I guess you are right. I'd better go home right now and do my homework.

MRS. WILSON—Thank you again, girls and boys, for coming to sing for me. Have you time for one more song?

ROGER GREEN—How about it? Shall we sing one more song?

(*Singers indicate that they are willing, decide on a song, and sing it. At the close, they say good-by and go off humming the tune of the song just sung.*)

MRS. WILSON—My, wasn't that a lovely thing for those children to do?

MRS. MCDONALD—It certainly was! I can imagine how pleased other families must be, too. (*Glances at the clock.*) Well, it is time for me to start for the bus. (*She puts on her hat and coat, and picks up her suitcase.*)

MRS. WILSON (*takes her coat from a chair and puts it on*)—I'll walk with you to the corner, Martha. Perhaps I shall meet James. It is time for him to come home. I can't wait to tell him about the letter from Jimmy and about the children singing for me, too.

(*Both women exit.*)

EDITORIAL NOTE: All of the songs referred to in this play may be found in *The New American Song Book*, published by Hall & McCreary Co., Chicago.

SUGGESTIONS for MARCH PROGRAMS

THE REASON WHY

CLARA G. CORNELL

Where does the March Wind
  Stay when he's home?
What does he do
  When unable to roam?
Nothing, I'm certain,
  But sleep, night and day,
Till eleven months
  Have passed away.
That is the reason
  Why he's so strong;
Why he can blow and howl
  All the month long.

RHYTHMIC NONSENSE

HELEN KITCHELL EVANS

High: Twiddle, Twaddle, and Twee
Went sailing out to sea
Medium: In—what do you think?
Low: In the kitchen sink
High solo: Sailed Twiddle,
Medium solo: Twaddle,
Low solo: And Twee.
High: "We must row our boat;
We must keep afloat,"
All: Said Twiddle, Twaddle, and Twee.
Medium: "The water is deep,
But let us not weep,"
All: Said Twiddle, Twaddle, and Twee.
Low: "Though we'll never make shore,
Let's paddle some more,"
All: Said Twiddle, Twaddle, and Twee.
Low: The pea pod went down.
Highest solo: "I think we shall drown."
High solo: Said Twiddle,
Medium solo: Twaddle,
Low solo: And Twee.

MARCH QUESTIONS

SOLVEIG PAULSON RUSSELL

Kite, kite, up in the sky,
What is it makes you ride so high?
Hat, hat, skimming the street,
Why outrace your owner's feet?
Windmill, windmill, on the hill,
Can't you keep your great arms still?
Trees, trees, with branches bare,
Why do you flail them in the air?
Clothes, clothes, hanging in the yard,
Why do you tug the line so hard?

Child, child, don't you know?
It's the old March Wind that makes us go.
It's the old March Wind that tugs the sheets,
And sends hats skimming down the streets,
That bends the trees and keeps kites high,
And pushes the clouds about the sky.
It's the old March Wind, rough as can be,
A fellow you feel, but cannot see.

PEACE ACROSTIC

CATHERINE L. COWLES

(An exercise for five children. Each child carries a card on which is pasted one letter of the word peace. *At the end, the children and the audience may join in singing "America."")*

P stands for *people*
All over the world.
E stands for *emblems*
And flags unfurled.
A stands for *America,*
Land of the free.
C stands for *countries*
Across the sea.
E stands for *everyone,*
Large and small,
Who bravely answers
His country's call.
ALL We will plan for peace
In time of war,
And do our part
To earn once more
Peace for all people
Across the sea
And peace for Americans,
You and me.

'TIS SPRING

CLARA G. CORNELL

A thousand tiny pussies
  In soft fur coats of gray
Are sitting on the willow stalks
  A-sunning every day.

We like to see them sitting there,
  As back and forth they swing,
Because they bring the welcome news
  That once again 'tis spring!

THEY COME IN PAIRS

VIVIAN G. GOULED

So many objects
Are purchased by twos:
Gloves and house slippers
And cymbals and shoes;
Galoshes and ear muffs
And ice skates and skis;
Roller skates, stockings,
And still more of these;
Curtains; and earrings
For ladies; and then,
Trousers and socks
And cuff links for men.
It seems to me
There are pairs by the score.
Do you think that you
Could suggest any more?

ERRANDS

IVA RIEBEL JUDY

Roller skating, roller skating,
  On errands I can go
With a clatter, clatter, clatter,
  More often fast than slow.
Doing errands for the folks,
  While skating, makes it fun;
It's like playing while you work—
  A sort of two in one.

THE SONG OF THE RIVER

J. NORMAN WELLS

(Group the Girls on one side of the stage and the Boys on the other for this choral reading. Place the Soloists conspicuously in foreground and the Premier Soloist at center. Leader, a pupil with a marked sense of rhythm and judgment in timing, stands before Ensemble—either on stage or floor—where all may see and follow his or her directions.)

ALL BOYS (*moderate tone*)—River!
ALL GIRLS (*soft tone*)—River!
ALL BOYS (*increase tone*)—River!
ALL GIRLS (*soft tone*)—River!
ALL BOYS (*more volume*)—River!
ALL GIRLS (*soft tone*)—River!
ALL BOYS (*full tone*)—River!
(Begin the following softly, using singing tone and gradually increasing in volume.)
GIRL SOLOIST—Sing!
BOY SOLOIST—Sing!
GIRL SOLOIST—Sing!
BOY SOLOIST—Sing!
GIRL SOLOIST—Sing!
BOY SOLOIST—Sing!
ENSEMBLE (*moderate tone*)—Sing, (*rest*) river, (*rest*) sing!
(Leader: Count one; signal.)
ENSEMBLE (*full tone*)—Sing your song!
(Leader: Count four; signal.)
(Give the following slowly, but not too slowly. Contrast with fast tempo of the sequence that follows.)
ALL BOYS—River, river,
GIRL SOLOIST—Sing your song!
ALL BOYS—River, sing your song!
ALL GIRLS—River, river,
BOY SOLOIST—Rush along!
ALL GIRLS—River, rush along!
(Leader: Count two; signal.)
(Give as fast as possible without fluffing; rhythmically.)
ALL GIRLS—Rush and sing,
Rush and sing.
ALL BOYS—Sing and rush
And sing your song!
ALL GIRLS—Sing and rush,
Sing and rush.
ALL BOYS—Rush and sing
And rush along!
ALL GIRLS—Sing, rush, sing,
Sing, rush, sing.
ALL BOYS—Rush, sing, rush,
Rush, sing, rush.
ENSEMBLE (*slower*)—Rush (*rest*) along (*rest*) in song!
(Leader: Count four; signal.)
(Slowly—suiting the delivery to the mood of the words.)
ALL GIRLS—Sinking and creeping,
ALL BOYS—Rising and leaping,
ALL GIRLS—Swelling and flinging,
ALL BOYS—Showering and slinging,
ENSEMBLE—Oh, River-r-r-r-r-r-r—
(Hold "r" in a throaty tone as the following is given in quick succession.)
GIRL SOLOIST—River!
BOY SOLOIST—River!
GIRL SOLOIST—River!
BOY SOLOIST—River!
GIRL SOLOIST—River!
BOY SOLOIST—River!
ENSEMBLE—Going on and on and on!
(Leader: Count four; signal.)
ALL GIRLS (*pronounce carefully; not fast*)—Falling and crawling and sprawling.
ALL BOYS (*same as above*)—Grumbling and rumbling and tumbling.
(Playful mood; in good tempo.)
GIRL SOLOIST—Twinkling
ALL BOYS—River!
GIRL SOLOIST—Wrinkling
ALL BOYS—River!
GIRL SOLOIST—Sprinkling
ALL BOYS—River!
ALL GIRLS—Through the day, though right or wrong!
(Leader: Count one; signal.)
ALL GIRLS (*articulate carefully; not fast*)—Bubbling and troubling and doubling,
ALL BOYS (*same as above*)—Gleaming and beaming and steaming.
(Light mood and good tempo in the following.)
BOY SOLOIST—Chatt'ring
ALL GIRLS—River!
BOY SOLOIST—Batt'ring
ALL GIRLS—River!
BOY SOLOIST—Shatt'ring
ALL GIRLS—River!
ALL BOYS—Through the night, with current strong!
(Leader: Count one; signal.)
("Mad" mood in the following. Stress with gestures.)
ALL GIRLS—Dashing,
ALL BOYS—Flashing,
ALL GIRLS—Splashing,
ALL BOYS—Clashing,
ALL GIRLS—Jumping,
ALL BOYS—Bumping,
ALL GIRLS—Plumping,
ALL BOYS—Thumping,
ENSEMBLE—Through the years, so mad you've gone!
(Leader: Count one; signal.)
GIRL SOLOIST (sotto voce, *but must be heard*)—Is the river really mad?
(Ad lib. reaction from Ensemble.)
BOY SOLOIST—It may be it is very sad.
(Reaction.)
GIRL SOLOIST—Perhaps the river's being bad.
(Reaction.)
BOY SOLOIST—No. The river's overglad!
("Oh's" of understanding from Ensemble.)
ENSEMBLE—Oh, River-r-r-r-r-r-r—
(Hold throaty "r" during the following.)
GIRL SOLOIST—Sing,
BOY SOLOIST—River,
GIRL SOLOIST—Sing!
BOY SOLOIST—Sing,
GIRL SOLOIST—River,
BOY SOLOIST—Sing!
ENSEMBLE—Sing!
PREMIER SOLOIST—
And so ever wending,
And always aquiver,
Your song has no ending,
Connecticut River! *(Name of any river may be substituted.)*
ENSEMBLE—SING (*rest*) YOUR (*rest*) SONG!

EDITORIAL NOTE: Two long choral readings by J. Norman Wells appeared in THE INSTRUCTOR for February 1943.

THE MAN WHO STRUCK OIL

A Historical Play

FOR MIDDLE AND UPPER GRADES

HELEN C. MORROW

Principal, Pleasant School, Warren, Pennsylvania

Because most families are affected by restrictions in the use of gasoline and fuel oil, the subject of this play is especially timely. Give it at a P.T.A. meeting.

CHARACTERS

HOTELKEEPER—Proprietor of the American House.

BEN, HENRY, SILAS, JANE, MARY, JAMES, MARTHA—Villagers. Others may be included if desired.

COLONEL DRAKE—A middle-aged man.

MRS. DRAKE—His young wife. She carries a baby (large doll) in her arms.

EDWARD—Six-year-old son of Colonel Drake and stepson of Mrs. Drake.

UNCLE BILLY—William Smith, a Tarentum blacksmith.

SAM—Uncle Billy's teen-age son.

COSTUMES

Costumes are like those worn while Abraham Lincoln was president.

SETTING

Act I.—A street in Titusville, Pennsylvania, in May, 1858. The backdrop should be painted to show the American House, a plain clapboard hotel. There must be a door leading into the hotel that can be opened.

Act II.—The Drakes' sitting room in the hotel. The furniture is plain, dark, and old-fashioned. On a corner whatnot are many small ornaments. There are straight chairs, a rocker or two, a table, and a cradle.

Act III.—Same as Act I, but a year later.

ACT I

(*Hotelkeeper idles in doorway. Villagers stand talking, waiting for the arrival of the Erie Stagecoach.*)

HOTELKEEPER—Do you all recollect that stranger who stayed here about five or six weeks ago?

BEN—You mean that tony fellow who called himself Colonel Drake?

HOTELKEEPER—Yes, that's the one I mean. He was here in Titusville about a fortnight. Remember?

HENRY—I calc'late he was here to buy lumber. He spent most of his time out at the Brewer and Watson Sawmill.

SILAS—That's where this Colonel Drake was right foxy. I don't believe he was interested in lumber, 'cause there isn't any lumber at the Injun-oil spring.

JANE—You're right, there, Silas. That's where Colonel Drake went every day. Mary and I came on him, when we were berrying; didn't we, Mary?

MARY—Yes, we did, and, truth to tell, he was skimming up that rock oil for all the world like an Injun.

JAMES—Now what in tarnation would a dressy, polite-spoken fellow like that Drake be skimming rock oil for?

HOTELKEEPER—Well, soon as the Erie stage gets here, you can ask him. The Colonel and his family are coming in on it. He sent a letter by the last post, reserving his rooms.

BEN—Catch me asking him questions. He gave short answers and tended to his own affairs before and I reckon he still will.

MARTHA—Maybe he and his family will put on one of those medicine shows.

HOTELKEEPER—Well, we'll soon know. Here they come!

(*General rush toward left side of stage. Voices and noise off stage announce arrival of the stagecoach. The villagers crowd back toward the center as the Drakes come forward. Mrs. Drake carries the baby; Colonel Drake, with Edward beside him, carries an old-fashioned valise.*)

HOTELKEEPER—Howdy, how d' ye do, Colonel Drake. We're right glad to have you here again. Your rooms are ready, just as you wrote for, sir. Hope you'll find them to your liking.

COLONEL DRAKE—Thank you. As we are tired from the journey, we will have supper in our sitting room. Please order a carriage for me for tomorrow morning. I shall be riding out to the Brewer and Watson mill.

SILAS—You still interested in that rock-oil spring, Stranger?

COLONEL DRAKE (*in surprise*)—Rock-oil spring? Why—why—yes, I am interested in it, as a source of—er—salt.

SILAS—Salt! Sure it isn't ile, Stranger?

COLONEL DRAKE—Oil? You mean Indian rock oil, I presume? My stay in Titusville has to do with boring for salt. Good afternoon.

(*The Drakes enter the hotel.*)

MARY—Well, Silas, I hope you're satisfied. Come along home now.

SILAS—No, I'm neither satisfied nor fooled. You heard him say "boring for salt." Well, dimes to doughnuts, he's going to try to get rock oil that way. No, sir, Colonel Drake isn't fooling Silas Hopkins.

MARY—Now, Silas, you come along home. The Colonel is a right pleasant man and I'm sure he wouldn't be foolish enough to try anything like boring into the ground for oil. Why, land's sake, he might bore right down to China!

BEN—I guess you're right, Mary. Like as not, he'd come bringing up a pot of Chinese tea instead of Injun rock oil.

(*Villagers laugh and talk among themselves as they leave the stage.*)

ACT II

(*Mrs. Drake and Edward are seated. The baby is in its cradle, which Mrs. Drake rocks.*)

EDWARD—Mother, why do all the boys keep yelling "Injun ile! Injun ile!" at me? What is "Injun ile" anyway?

MRS. DRAKE—Never mind the boys, Edward. They are only trying to tease you. Just pretend you don't hear them. By "Injun ile" they mean the oil found on pools of water, which the Indians have long used for medicine.

EDWARD—I don't like those boys. They call my father an Injun. He isn't an Injun, is he, Mother?

MRS. DRAKE—Of course not, Son. Your father is a gentleman, honest and sincere. I pray you will grow to be just such a man as he is.

EDWARD—Well, the boys say he's crazy, always hanging around that oil spring.

MRS. DRAKE (*sharply*)—Never let me hear you speak like that again, Edward. Now, run down and ask the hotelkeeper whether he will sell me a few sheets of letter paper.

EDWARD—Yes, Mother. (*Exits.*)

(*Mrs. Drake busies herself about the room, looks at the baby, and so forth. Steps are heard, and Colonel Drake enters.*)

MRS. DRAKE—Ah, Edwin, I can see by your face that you are feeling much happier. Did the morning post bring good news from the Seneca Oil Company?

COLONEL DRAKE—I have had a fine piece of news, my dear, but not from Connecticut. I fear the Seneca Oil Company has lost faith in our schemes, but two Titusville gentlemen, Mr. Fletcher and Mr. Wilson, have confidence in me and have agreed to finance me.

MRS. DRAKE—How splendid of them! Now if you could only find a good workman, I believe your troubles would be over.

COLONEL DRAKE—I hope you are right. And I think I have found just the man. I am expecting him here any minute. He is William Smith, a Tarentum blacksmith who is usually called Uncle Billy.

MRS. DRAKE—But, Edwin, a blacksmith would scarcely know how to drill for oi—salt.

COLONEL DRAKE (*as noise is heard off stage and there is a knock at the door*)—Wait and we shall see. (*He goes to door.*)

(*Uncle Billy and Sam enter.*)

COLONEL DRAKE—How do you do, sir? I am Edwin Drake.

UNCLE BILLY—How be ye, Colonel Drake? This is my boy Sam.

(*Sam grins bashfully.*)

COLONEL DRAKE—Gentlemen, my wife.

(*Uncle Billy and Sam bow awkwardly.*)

MRS. DRAKE (*smiling*)—How do you do?

COLONEL DRAKE (*offering chairs*)—Sit down, Mr. Smith. Here is a chair for you, Sam. (*Turns to Uncle Billy.*) I know you have been hearing strange rumors about me. I half wonder that you had the courage to come up.

UNCLE BILLY—Well, to tell the truth, I was right curious to see you, Colonel. I heard you were all-fired interested in Injun oil, but that you're drilling for salt. I thought likely you sent for me 'cause you needed a salt-driller.

COLONEL DRAKE—Yes, you're right. I need a good driller, but not to drill for salt—rather to drill for oil. I plan to drill the world's first oil well, Mr. Smith.

SAM (*in a hushed voice*)—Let's be going, Pa. I 'low he's crazy.

UNCLE BILLY—Now, Son, don't speak out of turn. Never mind him, Colonel Drake. (*Continued on page 68*)

LOW-COST SCENERY FOR PLAYS

KATHRYN MILLER KELLER

Formerly, Teacher of Art, Adams Township Schools, Lucas County, Ohio

Here is valuable information to guide you in your play-production work. How to get around obstacles in stage settings, and the best use of materials, are fully discussed.

You are never so deprived of materials or ingenuity that you have an excuse to say, "I cannot give a program because I have too small a stage," or "I have no scenery," or "I have no stage at all!" Remember that William Shakespeare, though he had a stage, depended on placards to set the scene. Even if you have no stage and must use the front of your classroom, *an ounce of suggestion is worth pounds of stage equipment.*

In every school building and its neighborhood, no matter how poor, there is a wealth of raw material for the dilettante stage designer. Children will bring wagon wheels, cracker boxes, laths, twigs, odds and ends of paint; or they will lend a saddle, clotheslines, bed sheets, Indian blankets, and paintbrushes. Cartons in which the school's paper-towel supply is packaged, to say nothing of the towels themselves, may make their debut on the stage. You know, of course, the value of cultivating good relations with your local lumberman, who may donate wallboard that is soiled or slightly damaged, and with your grocer, who may let you have wrapping paper. If you need a large quantity of paper, buy a 24-inch roll. Two dollars' worth will furnish enough for five performances. Fifty or sixty cents' worth of powder paint will see you through the making of two sets at least.

Every pupil, regardless of age, is a potential member for your construction crew, provided you plan intelligently, taking age into consideration. I have managed to make successful stage sets with children as young as those in the first and second grades.

There are a few rules which one should bear in mind. First, do not try to make elaborate backdrops and wings unless you have a great deal of time, older pupils with exceptionally good sense of distance and perspective, plenty of room to work, plenty of space for storage between working periods, and plenty of money. Second, the small stage should have the fewest possible things on it. Better confine your "suggestions" of scenes to flat things that can be hung on the walls. Third, if the ceiling is low on your stage, endeavor to use properties with strong vertical lines, to give the illusion of height.

Let us consider the worst possible conditions under which to give a program: no stage at all. Presenting something at the front of the classroom eliminates the surprise element which is present when a curtain goes up. However, the audience's surprise in finding that you have done anything at all in the way of scenery will quite compensate for this. Above all, do not hang a makeshift curtain. At best these are sagging, sorry sights! You can always manage a suitable entrance for your performers without curtains.

Your first problem is the long stretch of blackboard, which is anything but a lovely background. If your play requires an interior setting, thumbtack sheets of paper marked and painted like windowpanes to the molding at intervals. You will find that small panes, either rectangular or diamond-shaped, are more interesting than two large panes. On the blackboard left exposed you can draw interesting allover designs to simulate an Oriental wallpaper. Or, if you can find a suitable wallpaper, use this to cover the rest of the blackboard.

Outdoor scenes are not too difficult. Stretch lengthwise of the blackboard a long piece of paper, wide enough to reach from the chalk tray to the floor. Mark this with black crayon to resemble a stone wall. Hang sheets over the blackboard. To these, pin graduated discs of colored paper to make hollyhocks growing in front and back of the wall. (Incidentally, I once directed the making of such a scene by first- and second-grade children.) A pole with a cracker-box birdhouse on top, set at one side of the stage, adds an attractive detail to the garden scene.

In a portable building in which I once taught there were doors at either end of the blackboard and ugly built-in cupboards in each corner. Using sheets as a background the children painted bushes on brown wrapping paper and pinned these along the chalk tray. We imagined the cupboards to be parts of houses jutting out into the stage and so we made diamond-paned windows to tack on the cupboard doors. Below the windows we fastened cardboard boxes filled with fanciful flowers and vines made during an art period. To make a tile roof for the two projecting house corners, we cut towel tubes in half lengthwise. After pasting house numbers on the doors the street scene was complete. (See illustration below.)

As a background for a city street at night, you may find it effective to cover the blackboard with paper shop-windows of different widths with the shopkeepers' names printed on each. Between the windows, paper doors having painted numbers and door knockers will add much realism. A cracker box to which a conical top has been added may be covered with yellow paper and mounted on a pole, for a street lamp.

All these suggestions are also usable on the small stage with its particular problems. Often you have to contend with a low ceiling and heating pipes! On such a stage, I gave a play with a change of setting. The first two acts called for an outdoor winter scene and the last for a Santa Claus's palace. We covered the two small existing windows with larger "stained glass" arrangements. An art period was devoted to making the panes. We decided not to use pictorial windows because they would tend to draw the back wall nearer the audience, and the stage already looked too small. Instead each pupil stained some paper towels with water-color paints, applying all the colors to the dampened surface and allowing them to run together. Using several cardboard cartons, we made tall Gothic forms to give height to the squatty stage. After pasting the "stained glass" panes to this cardboard surface we painted frames and crossbars with black enamel.

We put these windows up first and then hung sheets over them and the remaining wall space. Imagining this white background to be a snowy landscape we pinned to it pine trees cut from brown paper and colored with chalk. Varying the size of the trees and the height at which they were pinned gave us a fine effect of distance. Wads of cotton batting pinned to the trees added to the wintry spirit. It was a simple matter between acts to unpin the snow scene, revealing the interior scene.

Even without suitable backdrops, many settings can be arranged merely by suggesting (*Continued on page 65*)

Teachers' Help-One-Another Club

INDIAN SKILLS

MABEL C. OLSON

HISTORY pupils usually enjoy studying about the Spanish conquest of the American Indians. But as a rule they do not have a very accurate idea of the advanced civilization of the ancient Americans. Worth-while projects to illustrate these aspects are paper cuttings of the delicate miniature gold butterflies, frogs, and other creatures characteristic of one tribe; clay modelings to show the massive stone sculpture done by another tribe without metal tools; clay votive vases imitating delicately painted pottery; and feather and weaving experiments to discover the Indians' methods of producing textiles.

EFFECTIVE STUDY

MARION GRUSKY

I HAVE charge of a large study hall and I find that the following procedure aids the pupils to budget their time, gives them a clear picture of their objectives, and ensures order for the entire study hall.

At the beginning of the period I have each pupil write on a small piece of paper his name, the date, and the work he expects to accomplish during the period. Near the end of the period I check the work the children have completed, put a mark on each child's slip (*S*=satisfactory work and behavior), and collect the slips, which I keep on file for reference.

THOSE GLASS DOORS

GLADYS S. SHIRES

LET those glass doors in your classroom cupboard be a display frame for your pupils' art work! Construction paper makes a suitable background, and any medium that you are using in art class—paper cutting, crayon drawing, or water-color illustration—can be chosen to decorate the paper.

Stress the centering of the design and insist upon a generous, even margin. Seasonal subjects provide an abundance of suggestions each month.

Appoint an art committee to select and arrange the work for display. That tall boy who is discouraged because reading remains a dark mystery to him may be surprisingly skillful at thumbtacking the display sheets to the molding inside the doors.

Then you all stand back, survey, and admire. It is really amazing how much glamour that thin glass imparts to each bit of handwork!

Children will derive satisfaction from well-earned artistic effort and the teacher's face will reflect the gaiety and interest of something new behind those familiar glass doors.

"ADS" AS SEATWORK

ANN ELIN BARKER

IN MY school I found that I sometimes ran out of interesting seatwork related to the reading activities of my first-graders. Then I thought of an idea that proved satisfactory.

After my pupils had gained a fair-sized vocabulary, I selected for each child a full-page illustrated advertisement that contained many words with which they were familiar. After choosing a favorite crayon from his color box, a pupil looked at all the words on the page I had given him. When he found a word he knew he drew a circle around it with a crayon. Later we went over the pages together and he read to me each of the words which he had circled.

The children seemed to enjoy this type of seatwork; it made them feel more grown up to be reading from a magazine. At home they would look at a magazine and identify words that they had learned in school.

SHUFFLEBOARD

IRENE SEGERHAMMAR

PLAYING shuffleboard is a good activity for the recess periods on rainy days. Even if a schoolroom is too small for a court of regulation size, pupils can play on a miniature court drawn on the floor with chalk.

The disks can be the circular lids of metal cans three or four inches in diameter, four painted green and four painted red. From a board one inch thick saw out a piece of wood the shape of the end of a regulation cue. Screw or nail this piece to the end of a broomstick, and you have a cue.

Follow the rules for the game of shuffleboard, which are given in many game books and encyclopedias.

FOR THE BIRDS

AGNES SCHMIT

MY PUPILS take delight in making wooden birdhouses. Useful ones can be made with little trouble and expense. By sawing a cheese box in two and putting a new top and a new side on each half, two square birdhouses were made. A diamond-shaped house was made by nailing a square box diagonally to a square board. Other varieties were made also. After the boxes were finished we painted them leaf-green.

The children were happy to have their pictures taken with their completed project. Later they told of wrens making nests in the houses.

A GEOGRAPHY GAME

WESLEY E. WALL

CHILDREN in your geography class will enjoy this game, which will help them to remember and to spell place names.

Divide the class into two teams, each headed by a captain. Captain No. 1 begins the game by giving the name of some city, town, mountain, lake, or other feature of the area that is being studied, and spelling it. Let us say he gives "Arctic." Captain No. 2 then names and spells a word beginning with the last letter of the one just given. He might choose "Canada." Follow this procedure until each person has had a turn.

Each contestant must tell his word and then spell it correctly. The teacher may record the words on the blackboard. Anyone who is unable to give or to spell a word takes his seat. A good plan is to announce the date of the game a few days or a week in advance. You will be surprised at the interest aroused.

Club Contributors, Attention!

ARE you one of the many teachers who find the suggestions on the pages of the Help-One-Another Club invaluable? Perhaps you have developed in your classroom original and practical devices which you would be willing to share with other teachers. If so, we will be glad to have you send them to us.

We pay one dollar upon publication for each article appearing in this department. An additional dollar is paid for each accompanying photograph that is used.

The articles submitted to the Help-One-Another Club cannot be acknowledged, and we are unable to return articles that we do not use.

If you decide to send us some helpful suggestions, please comply with the following rules.

Place your name and address in the upper left-hand corner of the first page of each manuscript. (A married woman should use her given name, not her husband's.)

Put your name and address on the back of each photograph submitted.

One article should not exceed 300 words in length.

Plain white paper, 8½" x 11", is preferred.

Begin each article on a new sheet. (It is not necessary to send a letter with your contribution, but if you do so, put it on a separate sheet.)

Your article should be typewritten if possible, with *double spacing*. (If you submit a handwritten article, be sure to write plainly on one side of the paper only and leave space between the lines.)

A CLEARINGHOUSE

CHARLOTTE LEHMAN

DOES your desk or table become cluttered with toys, discarded books, visual aids for completed lessons, and odd things no one claims? One day I thought of a scheme to utilize things I hesitate to throw away.

Into a big box on the bottom shelf of my cupboard went everything not needed at once for class activities. Desk, table, and window sills were cleared, and work improved. When the box was full, I asked the class whether they would like to play store in game time. They all said yes.

We made pocketbooks of kraft paper. From the leftover scraps we cut circular pieces, using different-sized wooden spools as guides. These were to be our "money." The 1A and 2B classes enjoyed making pennies, nickels, dimes, and quarters. Some pupils made price tags. For a store name I suggested "Clearinghouse."

After removing everything from our large book table, I brought out my heaping box of odds and ends. The children were delighted, and I did a fine "cash" business. Pupils were allowed to shop several times if they could make the correct change. Soon we had sold out completely. This device provided excellent language and arithmetic drill.

SCHOOL LUNCHEON

ESTHER V. KING

TO MAKE more concrete some of the things which my pupils had learned in connection with our lessons on nutrition and to provide a pleasurable opportunity to utilize their newly acquired knowledge of table etiquette, lunch was prepared and eaten at school one day.

A copy of the following note and a list of the foods to be served were sent home with each child.

DEAR PARENTS:

We are planning a school luncheon for the First Grade. It will be Wednesday noon, March 12. Each child is to bring a soup bowl, a plate, a glass, a spoon, and a fork.

The children will help prepare the food and they are also asked to contribute some of it. Will you please check the item or items in the accompanying list that your child can bring, and return the slip by Tuesday?

The morning of the eventful day was spent in preparing the main dishes for the menu. Three mothers helped by overseeing the cooking and serving. Some of the children set the tables and arranged decorative centerpieces.

Our menu consisted of vegetable soup and crackers, milk, and fruit salad. For the soup we used cubed beef which had been cooked enough so that it required no more cooking time at school than was needed to cook the vegetables for the soup.

USE OF TELEPHONES

FLORENCE STEINLE

AFTER a number of children in my second grade had brought play telephones to school, I arranged several incorrect telephone conversations, allowing the children to find and report the errors.

Next I wrote the following directions on the blackboard.

1. Call the fire station and report a fire at your home, being careful to give your address.
2. Answer the telephone and either call another person to the telephone or explain that he is not at home.
3. Call a doctor. Tell him what you think he is needed for.
4. Call your grocer and order food for today's meals.
5. Call a friend and invite him to your birthday party.

On my play telephone I answered these calls, asking the children to repeat if they failed to speak distinctly.

The resulting benefits were new words learned, practice in telephone use, and practice in speaking distinctly and courteously.

A PUPPET UNCLE SAM

DOROTHY OVERHEUL

SOME of my pupils made a life-size, jointed Uncle Sam. The pattern was drafted on wrapping paper, and then cut from corrugated cardboard cartons. The hat, head, and body were made in one piece; the arms and legs each in two pieces.

Buttons were used at shoulders, elbows, hips, and knees, to produce joints. These buttons were placed front and back and joined by sewing through the two thicknesses of cardboard. (Large paper fasteners could be used.) The trousers and the crown of the hat were painted in red and white stripes; the face, vest, and hands white; the hat brim blue; the coat blue, with black lapels; and the shoes black. Blue stars were put on the vest for buttons.

The features were next drawn and tinted. Absorbent cotton was used for the beard and sideburns. Strings were attached at the elbows and knees and brought together so that Uncle Sam was able to dance. The children liked to make him perform.

FREE-TIME READING

DOROTHY I. ANDREWS

IN ALL the classrooms of our school, we find that if each child keeps a free-time reading book in his desk and forms the habit of reading it when his other work is finished, an immense amount of good can be accomplished. Otherwise, certain children will finish assigned classwork and then sit as idlers or perhaps try to start a conversation with their neighbors.

If the habit of making use of free-time reading books is established, discipline problems fade away, for children are profitably and steadily engaged. In addition, a knowledge and appreciation of children's literature is developed.

Children from the first grade through the eighth can be taught to use and not misuse this privilege.

A SEWING CHECK

ETHEL JOHNSON

MY PUPILS often came to sewing class without some of the necessary material or equipment, or they failed to make satisfactory progress. The following check list, on which a record is kept for each girl each week, changed the situation.

1. I have all sewing equipment in a suitable container. (Needles, thread, scissors, tape measure, and so on.)
2. I have all necessary materials. (Cloth, bias tape, zippers, or anything needed for a particular project.)
3. I have a pattern.
4. I rip out stitches cheerfully.
5. My progress is satisfactory.

The fifth item is marked at the close of the class.

TENDRILS

E. IRENE BAKER

AS SPRING approaches we are watching carefully our sweet-pea seeds which are growing indoors. First, we soaked them in water to hasten germination. Then we planted them in a large tin can but they were too thick so we transplanted them into a tin water pail. The boys brought twigs and we twined cord around them for a support. The vines are climbing steadily. This has developed into a splendid science lesson. The children watch the tendrils grow and are learning about other vines through this experiment.

CLAY-MODELING TIPS

ELEANOR McCAMMON

AS AN art teacher, I have found that pipe cleaners make good armatures for modeling clay of the nonhardening type. They may be shaped for an entire framework and padded with clay; or small pieces, used for arms, legs, animal necks, and so on, may be covered with clay and stuck into a solid body or foundation of clay. They may be easily bent and cut with scissors, and the clay readily adheres to the fuzzy surface.

Club Exchange

THE INSTRUCTOR is glad to be a medium whereby you and your pupils may correspond with other schools. Use these columns for your exchange notices. Please follow these rules.

Try to include in your notice some point of special interest in your locality.

Your notice invites correspondence; therefore the children who write in response expect replies. Have your pupils answer as many of the letters received as possible.

Please do not write letters in reply to items which appeared in issues of the previous school year, since many teachers may not now be at the addresses given.

Have pupils who wish to write to a school listed below, do so soon after your copy of THE INSTRUCTOR arrives.

Address your notices for inclusion on this page to Club Exchange, THE INSTRUCTOR, Dansville, N.Y.

Alabama.—My pupils in grades seven, eight, and nine would like to correspond with pupils anywhere in the United States and in any other country. Address mail to: Mrs. Mary S. Smith, Rosalie School, Pisgah, Alabama.

California.—The pupils of my school, grades one to eight, would like to hear from pupils of other schools in the United States and its possessions. We are forty-two miles from Bakersfield, up the long and beautiful Kern River Canyon. Address: Mrs. Ida M. Stratton, Box 43, Bodfish, California.

Iowa.—The pupils of my rural school, grades four and five, and I would like to exchange letters, pictures, and cards with pupils and teachers of all states, Mexico, Canada, and Cuba. Our school is located in a rich farming district in Iowa, but our mail comes through a Minnesota post office. Address: Miss Fern Stenzel, R.D. 2, Elmore, Minnesota.

Kansas.—My pupils, grades five, seven, and eight, and I would like to exchange letters, post cards, pictures, souvenirs, and ideas with pupils and teachers of other schools in the United States and its possessions, Mexico, and South America. We live in the mixed-farming region of Kansas. Address: Miss Florence Ross, Eskridge, Kansas.

Kansas.—The pupils of my school would like to exchange letters with pupils in the United States, Mexico, and Canada. Our state ranks high in oil and natural-gas production. Address: Miss Larena Farmer, Hugoton, Kansas.

Kentucky.—My fourth-grade pupils and I would like to exchange letters, post cards, and souvenirs with teachers and children in the intermediate grades of schools in the United States and its possessions. We live in the mountainous section of eastern Kentucky. Address correspondence to: Miss Kathryn Allen, Lackey, Kentucky.

Maine.—The pupils of Grant Street School would like to correspond with seventh- and eighth-grade pupils in other schools in the United States and Canada. Address mail to: Mrs. Jessie W. White, Farmingdale-Gardiner, Maine.

Michigan.—My pupils of the fifth and sixth grades would like to exchange letters with pupils of the same grades in other schools in the United States, Mexico, and Canada. We live in the Wolverine State a few miles west of Ann Arbor. Address: Mrs. Bessie Mitchell, Grass Lake, Michigan.

Michigan.—The pupils in our school in grades four through eight would like to exchange letters, pictures, and cards with pupils in these grades in other schools in the United States, Canada, Mexico, and South America. Our school is located in a mixed-farming and winter-sports region. Address all mail to: Miss Edna Bogard, McBain, Michigan.

Michigan.—The pupils and teacher of John Diamond School, grades one to eight, would like to exchange letters, pictures, products, schoolwork, and souvenirs with pupils and teachers in other schools in the United States. Our school is near Flint. Address: Mrs. Theo Jensen, John Diamond School, Otisville, Michigan.

Michigan.—My fifth and sixth grades and I wish to correspond with pupils and teachers elsewhere. Address all mail to: Miss Marguerite Witt, 405 West Main Street, Owosso, Michigan.

Missouri.—My upper-grade pupils and I wish to correspond with teachers and pupils from the United States and other countries. Address: Miss Rita Litteken, R.D. 2, Box 192, Florissant, Missouri.

Missouri.—My pupils in grades one through eight wish to correspond with girls and boys in other states, Canada, and Mexico. We live in a section noted for agriculture and dairying. Address: Miss Josephine Hellums, Carnegie School, R.D. 1, Saint Joseph, Missouri.

Montana.—The seventh- and eighth-grade pupils of Brockway School would like to exchange post cards, letters, and pictures with pupils in other states, Alaska, Mexico, Canada, and Central America. We live in a wheat-raising and ranching area. Address: Miss Helen Hoeger, Brockway, Montana.

Montana.—My pupils, grades two, three, four, six, and eight, wish to correspond with pupils in Canada, Mexico, the United States, and its possessions. We live in a wheat-farming area and near the sugar-beet area. Address: Miss Lucille Smith, Newhope School, Chinook, Montana.

Nebraska.—The pupils of my rural school in grades two, four, and five would like to correspond with girls and boys in Canada, the United States, and its possessions. We live in the sandhills of Nebraska. Address: Miss Wilma Carpenter, Duff, Nebraska.

North Dakota.—My pupils in grades three, five, and six would like to exchange post cards, letters, and pictures with pupils of other schools in the United States, Canada, Mexico, and Alaska. We live near the Sheyenne River. Address mail to: Miss Josephine Rueckert, Grand Prairie School, Luverne, North Dakota.

Tennessee.—My pupils of Canah Chapel School would like to correspond with pupils of the fifth, sixth, seventh, and eighth grades in all the states. We live in the mountains of east Tennessee. Address: Mrs. Blanche W. Miller, 208 Main Street, Erwin, Tennessee.

Wisconsin.—My pupils of the second, fifth, sixth, seventh, and eighth grades would like to exchange letters with other pupils anywhere in the United States. Address: Miss Vernice Johnson, Kay School, Spring Valley, Wisconsin.

THE *You* YOU CAN BE . . .

For Teachers Only

MARY ANN MONAHAN

Teacher of English, Grades 6, 7, and 8, Public School, Middlebush, New Jersey

Miss Monahan's delightful advice in verse comes to a close with this installment. We hope that you have found it useful as well as amusing. It was sent to us by Dr. Edgar F. Bunce, president of New Jersey State Teachers College, Glassboro, N.J.

LESSON XII

Though your standards of teaching
are high as a steeple,
We solemnly ask you—do you like
people?
If you don't, our advice is simple and
brief:
We think you had better turn o'er a
new leaf.

Do you drop a friendly word
To the jovial half-cooked bird
Who sells chestnuts on the street?
To the cop upon his beat?
Do you feel a kind of joy
When you tip the paper boy?

Would you stop a while and chat
With that sweet, malicious cat
Who has naught to say that's good?
Would you help her if you could?

When you meet someone new, are you
friendly and gay
In spite of reports of what others
may say?
Do you patiently wait for a glimpse
at her heart,
Or just automatically take her apart?

When the salesgirl finds you stop-
ping
At her counter while you're shopping,
Do you pucker up and freeze
At her "May I help you, please?"
Or do you smile and sweetly say,
"No, thank you," and be on your
way?

When the butcher has no chickens
Are you angry as the dickens?
Does your face turn green, then red;
Or do you order duck instead?

If the hash is cold as ice
Are you ladylike and nice
To the waitress, well aware
That *serving* only is her care?

All these silly little questions
Plus our brief and pert suggestions
Were invented to propound
You can be the best around!

EPILOGUE

To be a pedagogue today,
And say the things we have dared to
say—
Things we never gleaned at college—
Requires, we think, more nerve than
knowledge!
Still we justify our "crust,"
Since we feel our cause is just,
By one thought, and we'll confide it—
This plan works because we've tried
it.
And we grudgingly admit
That a goodly part of it
Was included 'cause we knew
Failures made by us—not you!
So forgive us if we've stated
Faults to which you've been related.
And be glad you're wise concerning
Things we've spent a decade learn-
ing.

Strive then, every Flo and Trixie,
Teaching school from Maine to
Dixie;
Aim to get more consolation
From your job in education.
Make your mind up from this minute
That *your* world will know you're in
it!

You and Your Reading

HENRIETTA HOLLAND

Teacher, Sixth Grade, Roosevelt School, San Bernardino, California

You budget your time and your income; you have a schedule for teaching and a schedule for playing. Now check the list given here to find how well read you are, and plan to include in your time budget a schedule of reading for pleasure and education.

DURING the past few years, many of us have somewhat neglected our reading for the more spectacular entertainment of parties, concerts, travel, and movies. Now that we are staying home more, let's take an inventory of our reading.

How well read are we? Do we have at least a nodding acquaintance with many of the recognized great works of literature, and with others that are worth knowing? Any list reflects personal preferences (and will omit some of your favorites), but here is one that ranges over a wide field.

Adams, Henry: *Education of Henry Adams.*
Adams, James Truslow: *Founding of New England.*
Addams, Jane: *Twenty Years at Hull House.*
Andrews, Roy Chapman: *On the Trail of Ancient Man.*
Arabian Nights' Entertainments; tr. by Richard F. Burton.
Austen, Jane: *Pride and Prejudice.*
Bacon, Francis: *Essays.*
Balzac, Honoré de: *Père Goriot.*
Beard, Charles A.; and Beard, Mary: *Rise of American Civilization.*
Benét, Stephen Vincent: *John Brown's Body.*
Bennett, Arnold: *Old Wives' Tale.*
Beveridge, Albert J.: *Life of John Marshall.*
Boswell, James: *Life of Dr. Johnson.*
Bowers, Claude G.: *Jefferson and Hamilton.*
Brontë, Charlotte: *Jane Eyre.*
Brontë, Emily Jane: *Wuthering Heights.*
Bryce, James: *American Commonwealth.*
Bunyan, John: *Pilgrim's Progress.*
Burroughs, John: *Wake-Robin.*
Carroll, Lewis: *Alice's Adventures in Wonderland.*
Cellini, Benvenuto: *Autobiography.*
Cervantes, Miguel de: *Don Quixote.*
Chaucer, Geoffrey: *Canterbury Tales.*
Crane, Stephen: *Red Badge of Courage.*
Dana, Richard Henry: *Two Years before the Mast.*
Darwin, Charles R.: *Voyage of the Beagle.*
Defoe, Daniel: *Robinson Crusoe.*
Dostoevski, Fedor M.: *Brothers Karamazov.*
Doughty, Charles M.: *Travels in Arabia Deserta.*
Fielding, Henry: *Tom Jones.*
Flaubert, Gustave: *Madame Bovary.*
Franklin, Benjamin: *Autobiography.*
Green, John Richard: *Short History of the English People.*
Hamsun, Knut: *Growth of the Soil.*
Harris, Joel Chandler: *Uncle Remus.*
Homer: *Odyssey;* tr. by George Herbert Palmer.
Hudson, W. H.: *Far Away and Long Ago.*
Hughes, Rupert: *George Washington.*
James, Henry: *Portrait of a Lady.*
James, William: *Varieties of Religious Experience.*
Jeans, Sir James H.: *Universe around Us.*
Kingsley, Charles: *Westward Ho!*
La Farge, Oliver: *Laughing Boy.*
Lewis, Sinclair: *Main Street.*
Lowell, James Russell: *Among My Books.*
Maeterlinck, Maurice: *Life of the Bee.*
Mann, Thomas: *Magic Mountain.*
Melville, Herman: *Moby Dick.*
Meredith, George: *Ordeal of Richard Feverel.*
Moore, George: *Esther Waters.*
Mukerji, Dhan Gopal: *My Brother's Face.*
Palgrave, F. T.: *Golden Treasury.*
Parkman, Francis: *Oregon Trail.*
Robinson, Edwin A.: *Tristram.*
Rolland, Romain: *Jean-Christophe.*
Roosevelt, Theodore: *Autobiography.*
Sandburg, Carl: *Abraham Lincoln* and *American Songbag.*
Sassoon, Siegfried L.: *Memoirs of an Infantry Officer.*
Stephens, James: *Crock of Gold.*
Strachey, G. Lytton: *Queen Victoria.*
Sullivan, Mark: *Our Times.*
Swift, Jonathan: *Gulliver's Travels.*
Thackeray, William M.: *Vanity Fair.*
Thomas à Kempis: *Imitation of Christ.*

Thoreau, Henry David: *Walden.*
Van Tyne, Claude Halstead: *Causes of the War of Independence.*
Washington, Booker T.: *Up from Slavery.*

Books written by the following authors are musts on any reading list. How many have you read? Barrie, Carlyle, Cather, Clemens (Mark Twain), Conrad, Cooper, Dickens, Dumas, George Eliot, Emerson, Robert Frost, Galsworthy, Hardy, Hawthorne, Victor Hugo, Ibsen, Irving, Kipling, Lamb, Masefield, O'Neill, Poe, Scott, Shakespeare, Shaw, Stevenson, Wells, Whitman.

Of recent best sellers, how many have you read? Check yourself with the following list of books that were best sellers during 1942.

Aldridge, James: *Signed with Their Honour.*
Bellamann, Henry: *King's Row.*
The Better Homes and Gardens Cook Book.
Chase, Ilka: *Past Imperfect.*
Chevalier, Elizabeth P.: *Drivin' Woman.*
De Seversky, Alexander P.: *Victory through Air Power.*
Fairbairn, William E.: *Get Tough!*
Field, Rachel: *And Now Tomorrow.*
Gardner, Erle S.: *The Case of the Careless Kitten.*
Hargrove, Marion: *See Here, Private Hargrove.*
Hobart, Alice Tisdale: *The Cup and the Sword.*
Jennings, John Edward: *Gentleman Ranker.*
Kiplinger, W. M.: *Washington Is Like That.*
Kroll, Harry H.: *The Rider on the Bronze Horse.*
Loring, Emilie: *Rainbow at Dusk.*
Macardle, Dorothy: *The Uninvited.*
MacInnes, Helen: *Assignment in Brittany.*
Ormsbee, David: *The Sound of an American.*
Rawlings, Marjorie K.: *Cross Creek.*
Reilly, Helen: *Name Your Poison.*
Reynolds, Quentin: *Only the Stars Are Neutral.*
Shea, Nancy: *The Navy Wife.*
Spence, Hartzell: *Get Thee behind Me.*
Steinbeck, John: *The Moon Is Down.*
Stern, Philip Van Doren: *The Drums of Morning.*
Tolstoy, Leo: *War and Peace.*
Trumbull, Robert: *The Raft.*
Werfel, Franz V.: *The Song of Bernadette.*
White, W. L.: *They Were Expendable.*
Ziff, William B.: *The Coming Battle of Germany.*

The many evenings when you can't get out and do things are going to be a good time to round out your reading background. Have you almost forgotten how much pleasure you can derive from a good book, a comfortable chair, and perhaps an apple to munch?

Try this monthly reading schedule.

Daily newspaper (including comics).
Magazines of your choice.
Old favorites: One fiction, and one nonfiction.
Best sellers: One fiction, and one nonfiction.
Professional: One book or magazine.

While you are at it, don't forget the dictionary; it's fascinating reading. So is an encyclopedia. And, during "these trying times" remember that the Bible is still the "best seller."

How to Secure a Teaching Position

SEVEN IMPORTANT POINTS TO CONSIDER

ROXIE ANDREWS FIRTH

Formerly, Assistant to the Director of Teacher Placement, University of Michigan, Ann Arbor, Michigan

As a further aid to you in securing a teaching position, Mrs. Firth reviews here the main points in her series of articles which have appeared monthly, with the exception of December, in THE INSTRUCTOR from June 1942 through February 1943. You may wish to refer to these issues for additional information.

WHERE IS THE DEMAND?

(See November 1942 issue, page 49.)

Statistics from the University of Michigan Bureau of Appointments, compared with statistics from several other state universities and state departments of education, show that for the past few years there has been a shortage of good teachers in the fields of elementary education, commercial education, domestic science, and industrial arts, while some fields, such as social science, have been definitely overcrowded. War conditions have made the shortage acute, the smaller towns and rural schools being affected most.

The value of nursery schools is being more and more recognized, some being organized, as a war measure, for children of mothers working on war production.

It is wise for one who is planning to enter the teaching profession to investigate the fields of demand in the localities in which she is interested and prepare to meet the certification requirements.

HOW TO FIND VACANCIES

(See October 1942 issue, page 51.)

The sources of information which have proved most helpful in locating vacancies are: (1) college and university placement bureaus, (2) state departments of education and education associations, (3) state employment agencies, (4) college professors and deans, (5) school administrators, (6) commercial teachers agencies, (7) friends, (8) newspapers. To locate the position for which she is best suited the serious candidate will make use of all these.

QUALIFICATIONS

(See September 1942 issue, page 51.)

First and foremost, superintendents look for a pleasing and superior personality—the characteristics of which they have listed as follows: a pleasing appearance, a well-modulated voice, good manners and social grace, good taste, faultless grooming, good health and vitality, emotional stability, poise, force and drive, and the faculty of being able to work effectively and smoothly with others.

It has been estimated that technical training counts 20 per cent to 30 per cent, while personal qualities count 70 to 80 per cent.

Other requirements listed in order of frequency of preference by superintendents are: adequate and recent training, ability to discipline, ability to get the subject across to others, acceptance of responsibilities, willingness and ability to direct extracurricular activities, tact, loyalty, professional interest, initiative, community interest, and a sense of humor. In addition, the larger systems usually require teaching experience.

WHEN TO APPLY

(See February 1943 issue, page 58.)

Statistics show April to be the leading month for hiring teachers, with August second. Therefore it is advisable to place applications just ahead of, and during, these two peak seasons, or, of course, whenever one is sure a vacancy exists.

HOW TO APPLY

(See February 1943 issue, page 58.)

The personal application, or a written application followed by a personal interview, is a prerequisite for nearly every teaching position for which you might make application.

You should appear for the interview well groomed and wearing appropriate clothes. The conservative tailored type of dress, brushed and pressed, worn with immaculate accessories, is a good choice. You should be ready to furnish accurate information regarding your training, practice teaching record, type of certificate, experience, philosophy of education, interests and talents, and your ability to discipline and to get on with others. Much of this information can be in the hands of the superintendent before the interview, if you have a set of your official credentials sent to him from a placement bureau.

THE APPLICATION LETTER AND PHOTOGRAPH

(See January 1943 issue, page 55, and February 1943 issue, page 58.)

Letters of application should be addressed to the chief executive, by name whenever possible. Directories, placement bureaus, or school secretaries can supply the names.

The letter should be neatly typed on a good grade of standard-size business stationery with special care given to wording, spelling, spacing, and margins. It should be brief and to the point and contain pertinent information about the candidate. A separate sheet in outline form giving information regarding training, experience, special interest, abilities, and so on, may be enclosed. The form below is offered as a suggestion. Type or print the outline on 8½" x 11" paper and fill in. (*Continued on page 66*)

Data concerning _____ Name _____

Telephone No. _____ Address _____

TRAINING

Photograph
2¼" x 3½"

Major _____ Minor _____
Teacher's Certificate _____ (Kind) _____ (Date)
Practice Teaching _____ (Grades) _____ (Subjects)

School or College	Degree	Date

EXPERIENCE

Position	Location	Date

Activities:
(List college or community activities which might indicate your qualities of leadership and ability to work with others. Example: Secretary Women's Education Club, 1930–1942; President Phi Delta Kappa, 1940–1941; member Mortar Board [senior honor society]; guardian Camp Fire Girls. Record any talents you possess, instruments you play, and so on.)

Publications:

References:

A complete set of credentials is on file with, and may be secured from _____.

Make several of these forms to enclose with your letters of application.

YOUR COUNSELOR SERVICE

Your Reading Problems

DELIA E. KIBBE

Supervisor of Elementary Schools, State Department of Public Instruction, Madison, Wisconsin

DO YOU have difficulty in teaching reading? If so, write Miss Kibbe, in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. She will answer in these columns, or by mail if you will enclose a stamped, addressed envelope.

What value is there in keeping records of the books which children have read during a school year?

Such records should tell you much about the children's reading interests, tastes, and habits. They will show whether pupils are reading increasingly better and higher-level books and whether there is a wide or a narrow range of subject interests. Too, they show the amount of voluntary reading which has been done by each pupil.

These records will be more valuable if the pupil's personal and spontaneous comments about a book he has read are recorded. This will help you to know whether the book has made a lasting impression on the child. If the pupil mentions the book some time after reading it, you may have the satisfaction of knowing that he enjoyed it enough to remember it and make it a part of his background.

Do you consider that sight oral reading is a good type of reading experience for primary and middle-grade pupils?

Sight oral reading is the most difficult type of reading. Only those pupils, therefore, who are exceptionally good readers should be asked to read aloud at sight. The material should be relatively easy for them so that they may read with confidence in an effective manner to the audience.

In general, I think pupils should prepare for the oral reading activities. If they are not prepared they may be embarrassed and emotionally disturbed, which may result in a distaste for oral reading in the future. Too, the listeners will be penalized by having to listen to poor reading; they may even be quite unable to get the thought from such reading. In that case, the time so spent would seem to have been wasted by both the reader and the listeners.

Problems in Using Visual Aids

F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, New York

QUESTIONS about using visual aids will be answered by Dr. McClusky in this department. Address him in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. For a reply by mail, enclose a stamped, addressed envelope.

What are the arguments in favor of the participation of pupils in the making of visual aids?

All individuals learn through their own activities and experiences. In other words, one learns to do by doing. Hence, it is pedagogically sound for pupils to make their own visual aids or to work co-operatively on visual projects.

To do a creative job with visual materials, the pupils must study the subject itself as well as the methods of presenting it. Furthermore, the organization of ideas into effective visual exhibits requires careful planning and keen intelligence. The more advanced pupils can do the research and planning, while the slower ones can work with materials and have the joy of participation.

The shortage of some of the more expensive materials due to the war is another argument for using the simple, homemade teaching aids. I am heartily in favor of encouraging pupils to make their own visual aids whenever this is practicable.

◆

Do you recommend that large wall maps always be hung on the north wall of the classroom?

There is a very good reason why maps should be placed on the north wall. Since north on a map generally points to the top edge, a pupil looking at a map hung on the north wall will be facing north and will more easily connect the north, south, east, and west of his school environment with the directions on the map.

Obviously, maps should not be hung on the north wall if this necessitates covering a window. Furthermore, not all classrooms are built on a true north-and-south axis, and this fact must be taken into consideration.

Your Science Question Box

GLENN O. BLOUGH

Instructor in Science, Laboratory Schools, University of Chicago

ARE you confronted with problems in your science teaching? Address Mr. Blough, in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. He will reply in these columns, or by mail if you will enclose a stamped, addressed envelope.

In explaining condensation, how can I show third-graders that there is water vapor in the air?

This concept, like many others in science (as well as in other areas of learning), is difficult because pupils cannot actually *see* that it is true.

The phenomenon of condensation is easily made graphic. The usual experiment to show that water condenses is to place ice in a dry tin cup, let the ice melt, and then observe the water condensed on the outside of the cup. Obviously the water vapor cannot come from the inside of the cup; the air is the only place from which it can come.

Pupils can discover numerous other cases where a cool surface causes water vapor to condense. Condensation could not take place if the air did not contain such vapor, but pupils must still take on trust that there *is* water vapor in the air.

How much physiology should be taught in the science program in the elementary school?

I assume that you are thinking of physiology as a study of the structure of the body. A study of structure without consideration of function seems to me to be largely useless.

If pupils are studying the problem of how food is digested in the body, they need to know something about the structure of the alimentary canal. If they are considering the question of how breathing takes place, they need some idea of the structure of the respiratory system. Some knowledge of physiology is essential for understanding the "why" of many of the health rules we give children.

How much physiology is taught depends then on the amount of emphasis placed on health. A study of formal physiology does not appear to me to be important at this level.

Your Music Counselor

LAURA BRYANT

Teacher of Singing, Public Schools, Ithaca, New York

ADVICE to help you teach music will appear in these columns in answer to your questions sent to Miss Bryant, in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. Enclose a stamped, addressed envelope for a reply by mail.

How do you determine the report-card marks children should receive in music, by tests or otherwise?

We use record sheets, and check children daily on dictation, sight reading, or song singing. At the end of each marking period it is easy to decide whether the child rates *A, B,* or *C* in music. Music tests are often unsatisfactory, as children have such diverse backgrounds in music.

◆

How shall I instruct children to hum? Should the lips be open or should they be closed?

Open the teeth the width of the first two fingers inserted one above the other. Close lips over the opening. (It isn't really humming if the lips remain open.) Try to place the tone in the head, imagining the bones of the face to be a sounding board. Relax jaw, tongue, and throat muscles.

Do you think it is necessary to stress the matter of posture when children sing at their seats?

Yes, good posture should always be required during the singing period. Tell the children to push their hips and waists against the backs of their seats. This will leave their shoulders and arms relaxed and will make deep breathing much easier.

◆

How may I improve the two-part singing of my pupils in the fifth and sixth grades?

First, select *easy* two-part exercises, preferably those that begin in unison. Several recent school music books contain this type of material. Second, try having the majority of the class sing the lower part and only a few the upper part, which is, of course, the easier. Permit your pupils to change parts frequently.

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* * *

Wartime limits the supply of Coca-Cola. Those times when you cannot get it, remember: Coke, being first choice, sells out first. Ask for it each time.

Ever notice that wherever people go to have fun, such as here at Central Park Zoo, you find they are usually having ice-cold Coca-Cola, too. Its taste and quick refreshment always "belong".

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YOUR COUNSELOR SERVICE

Solving Language Problems

MILDRED A. DAWSON

Associate Professor of Elementary Education, University of Tennessee, Knoxville, Tennessee

SEND your language, spelling, and handwriting problems to Dr. Dawson, in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. She will answer in these columns, or by mail if you will enclose a stamped, addressed envelope.

I am interested in securing devices to motivate grammar in the upper grades. Can you help me?

Action grammar is a helpful teaching device. This means that pupils act out parts of speech and various sentence constructions. For example, one at a time, they may walk across the classroom in a variety of ways. Members of the class describe what is being acted out, using complete sentences. To the clause "one pupil walked" they may add: *fast, slowly, awkwardly,* and so on. Thus an adverb of manner (how) is introduced.

To teach the transitive verb and the direct object, have one pupil do something to another, as *tag* him; or a pupil do something to an object, as *open* the door. It is evident that the action goes from one to the other.

Utilize grammar to show why certain expressions are incorrect. Help pupils to make their compositions more interesting by using vivid words and by varying sentence structure.

I should like to know what should be taken up in penmanship classes in the seventh and eighth grades.

While in the middle grades pupils should have established their lifetime standards and habits of writing. However, some of them may need specific corrective teaching and practice. All should have maintenance practice to keep up quality and rate. As often as possible, practice for maintenance should come through writing done in connection with the regular lessons of the day—legibility and neatness being the standards.

Your pupils should have at hand a penmanship scale for purposes of comparison. Such scales may be obtained from companies that sell penmanship supplies or from publishers specializing in tests—as World Book Company, Yonkers, N.Y., Public School Publishing Company, Bloomington, Ill., and Bureau of Educational Research and Service, University of Iowa, Iowa City.

Art Questions Answered

JESSIE TODD

Supervisor of Art, University Elementary School, University of Chicago

IN THIS column Miss Todd will help you with your art problems. You may write to her in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. For a reply from Miss Todd by mail, enclose a stamped, addressed envelope.

What can my fifth-grade children do with clay if they don't want to model animals and people, or make tiles?

Instead of the usual clay objects, some fifth-graders that I know like to model mountains with streamline trains going along the steep slopes and into tunnels. They model trees on the lower slopes, and little houses, barns, and roads. They paint them when the clay has hardened.

Other children model lakes of clay and on them they model boats. Some model pieces of land with city buildings on them.

Others make marble rollers. These are big hunks of clay in which tunnels are dug. Near the top they start the marbles rolling down through the tunnels so as to come out at the bottom. Sometimes the rollers are very complex. Three marbles may roll through different passages, perhaps crossing one another on the way. The children really work like engineers when they make such rollers.

If your pupils don't like to model ordinary animals, ask them to model gorillas. The boys especially will enjoy doing that.

◆

My pupils work too fast and consequently the results are scribbly. What can I do to make them go more slowly?

The whole world is speeded up now, and the children are a part of it. We found that our pupils visited too much with one another in art class. The noise of talking seemed to make them work faster. When we made a definite effort to keep the room quieter, the children began to work much more carefully.

Another plan that helped was to have many evaluating periods. The children's standards were raised and they wanted to do neater work.

A third device was to make illustrations for books. We tried to show that a scribbly result was not worth putting into a book.

(Continued from page 11)

The normal body has a capacity for storing vitamin A.

Although there is an abundance of foods containing vitamin A, there are many persons in the United States who have little or no stored vitamin A.

People who have stored vitamin A in their bodies may go without it for short periods.

Night blindness occurs only when the stored supply of vitamin A is almost exhausted.

Since babies store relatively less vitamin A than adults, their diets should be kept rich in this vitamin.

It is possible to obtain one's vitamin A requirement even though one is on a restricted diet.

Foods containing vitamin A always contribute other essential nutrients for health.

As a rule, men need more vitamin A than women.

Foods which contain an abundance of vitamin A are:

Vegetable	*Animal*
Spinach	Milk and Cream
Parsley	Butter
Kale	Eggs
Chinese Cabbage	Liver
Green peppers	Liver oils
String beans	Salmon
Peas	Kidneys
Unbleached (green) celery	Heart
Asparagus	Sweetbreads
Sweet potatoes	
Carrots	
Squash	
Yellow corn	
Rutabagas	
Apricots	
Yellow peaches	
Yellow melons	
Wheat germ	

Tests on Vitamin A

I. *If the statement is true, write* T *after it; if it is false, write* F *after it.*

1. Few people need vitamin A.
2. Night fliers (aviators) need extra vitamin A.
3. Vitamin A can be stored for a long time in the body by most people.
4. Foods rich in vitamin A are also rich in other nutrients.
5. Babies need a continuous supply of vitamin A.
6. Cereals are a good source of vitamin A.
7. Vitamin A is found only in animal foods.
8. All vitamin A foods are expensive.
9. Foods rich in vitamin A can easily be grown in a victory garden.
10. Vegetable foods rich in vitamin A take a long time to grow.
11. Men as a rule need more vitamin A than women do.
12. Eggs and milk are good sources of vitamin A and protein.
13. Meeting your need for vitamin A helps protect you against infections and ensures normal growth.
14. Athletes must meet their vitamin A needs if they are to excel.
15. Vitamin A is needed to ensure normal vision, especially in dim light.

II. *Choose the word or phrase which completes the sentence correctly.*

1. The greatest amount of vitamin A will be stored by
   a. babies.
   b. seventh-grade boys.
   c. seventh-grade girls.
   d. adults.
2. People of all nations need to have vitamin A
   a. once a day.
   b. every meal.
   c. once a week.
   d. stored, if not every day.
3. Lack of vitamin A is indicated by
   a. lack of muscular control.
   b. poor eyesight.
   c. inability to think clearly.
   d. deformities of bones.
4. All these foods contain vitamin A:
   a. lemons, liver, parsnips, eggs.
   b. milk, butter, salmon, green peppers.
   c. asparagus, carrots, white bread, hamburg steak.
   d. grapes, prunes, squash, apricots.

III. *Fill each blank with the word or group of words which will complete the statements correctly.*

1. Three of the most common animal sources of vitamin A are _____, _____, and _____.
2. _____ caused by lack of vitamin A hinders coast guardsmen on night shore patrol duty.
3. An inexpensive source of vitamin A is _____.
4. Vitamin A is added to a baby's diet very often by giving him _____.
5. Victory gardens can easily supply vitamin A if we plant _____ and _____ vegetables.

Key to Tests on Calcium

I. 1. T 5. F 9. T 13. F 17. T
2. T 6. T 10. T 14. T
3. T 7. T 11. T 15. F
4. F 8. T 12. F 16. F

II. 1. a high-school boy
2. more than once a day
3. are available in our community
4. strong bones
5. irradiated milk

III. 1. milk
2. milk
3. animal, vegetable
4. milk, cheese

Key to Tests on Vitamin A

I. 1. F 4. T 7. F 10. F 13. T
2. T 5. T 8. F 11. T 14. T
3. F 6. F 9. T 12. T 15. T

II. 1. d 2. d 3. b 4. b

III. 1. milk, butter, eggs
2. Night blindness
3. milk (or green leafy vegetables, or yellow fruits and vegetables, in season)
4. cod-liver oil
5. green, yellow

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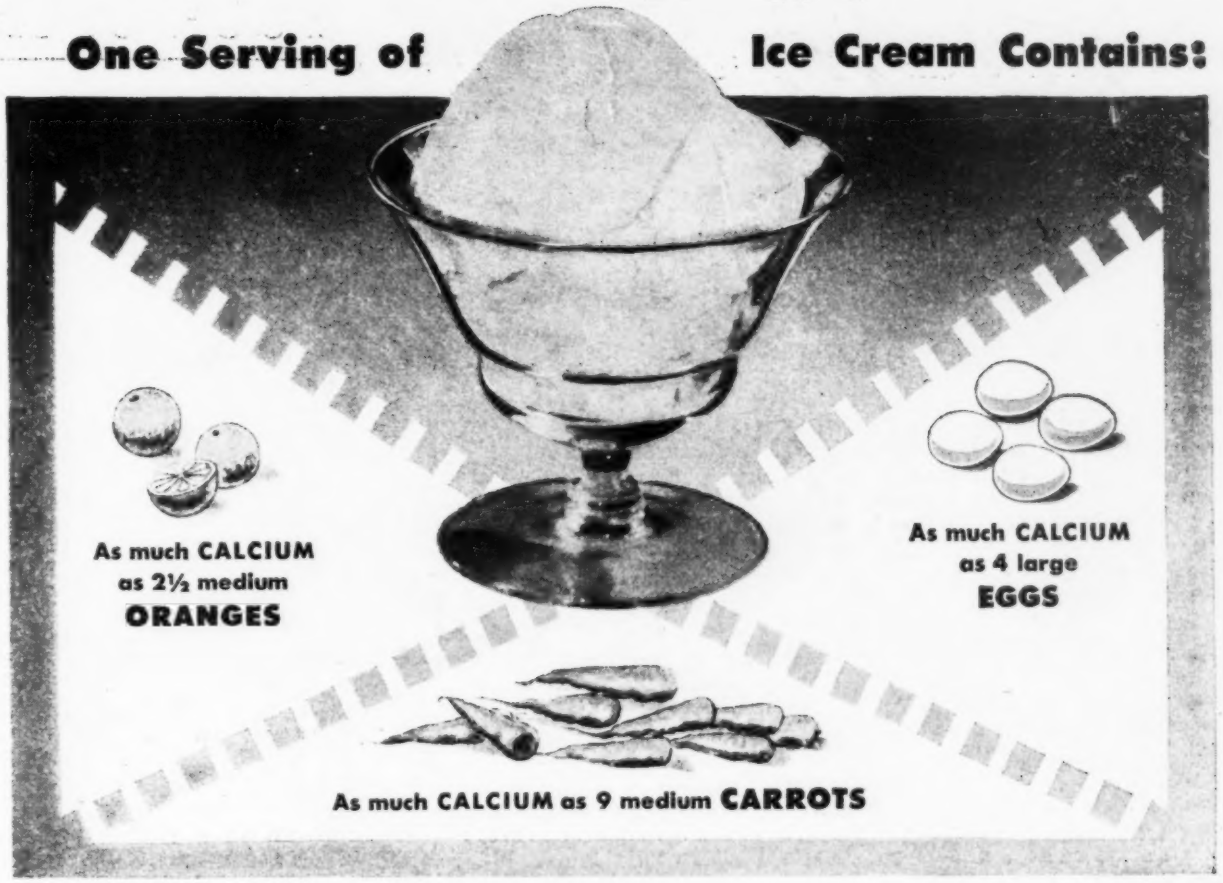

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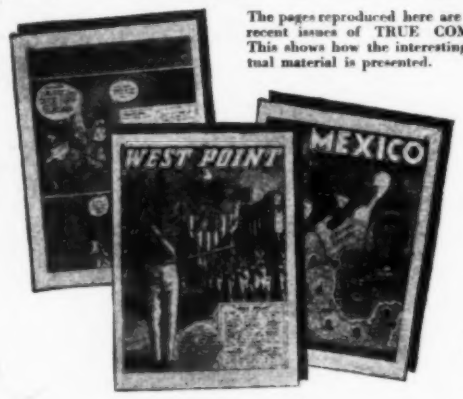

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IN3-43

Equipment for Numbers

(*Continued from page 21*)

Measuring cups: Supply a box of sand, several measuring cups, some spoons, and knives. Tell the children to measure 2 cupfuls, 2½ cupfuls, ¾ of a cup of sand, or estimate and then check the amount of sand poured into a bowl. Teach them to level off the top with a knife.

Milk bottles: Using a pitcher of water, help children to learn by experience that 2 half pints make a pint, 4 half pints make a quart, and 2 pints make a quart. Make up problems such as: If the milkman leaves 2½ quarts of milk at your house every morning, show us the various sizes and the number of bottles he leaves.

Berry baskets: Small stones or nuts are suitable material for many valuable measurement experiences using berry baskets. Children may actually measure given amounts, or estimate and then check the number of quarts in a pile of material.

Free activity with all such materials may accompany or follow the directed work. Playing store may also be enriched as children imagine the sand to be sugar, the water in the bottles to be milk, or the acorns to be cherries or other fruit.

Toy dial telephones and a toy cash register are also useful in make-believe storekeeping and in other play activities.

Toy money may be purchased from school-supply manufacturers, or made by cutting out coins that have been traced on cardboard. Some valuable directed work may also be given, such as the following: Count out 17 cents using four coins; five coins. Find a twenty-five-cent piece. Now find three pieces of money which make 25 cents. See in how many other ways you can make 25 cents.

Toy money is useful also in playing post office. Children can collect cancelled stamps of various denominations and buy and sell them; postal cards can be cut from cardboard.

A dater, which stamps the year, month, and day, can be used to cancel letters and postal cards, or to apply the date on library cards or papers. An ink pad is necessary for use with a dater.

Thermometers from ten-cent stores have many uses. A record can be made of hourly changes throughout the day; or indoor and outdoor temperatures can be compared. Various science experiments, such as watching the effect on the thermometer of placing it in snow, may be carried on. There is a real need for counting by 2's in using a thermometer, since the degrees are marked in this way.

The schoolroom clock may be of use in counting to 60 by 1's and 5's, and in learning quarter and half hours. Children may make cardboard clocks, and attach hands with brass fasteners. These can be set at various hours, and many interesting problems can be given.

A wall calender will also yield material for problems on the number of days in a week or month, the number of school days in a week, and the like.

A three-minute sandglass, obtainable at ten-cent stores, is always an interesting plaything. It may be usefully employed in timing the children for certain activities, such as clean-up work or putting on wraps.

Children also need much practice in manipulating counters before they can understand abstract numbers. Counters should be as uniform in size as possible. Some of the best counters are an abacus or bead frame containing ten rows of ten beads, one-inch wooden cubes, one-inch cardboard squares, splints of wood about six inches long, and flat sticks from ice-cream bars. Stones, acorn cups, and other nature materials, while not absolutely uniform, have the advantages of costing nothing and of being readily secured in quantity.

EDITORIAL NOTE: The lines quoted from *Busy Carpenters*, by James S. Tippett, are reprinted here by courtesy of World Book Company, Yonkers, N.Y.

YOUR COUNSELOR SERVICE

Your Arithmetic Counselor

FOSTER E. GROSSNICKLE

Professor of Mathematics, New Jersey State Teachers College, Jersey City, New Jersey

ADDRESS your questions on the teaching of arithmetic to Dr. Grossnickle, in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. He will reply in these columns, or by mail if a stamped, addressed envelope is enclosed.

I should like to know how to teach cancellation in order to make it more meaningful to my pupils.

Cancellation is chiefly a manipulative, mechanical procedure. Its use may help the pupil become skillful in finding answers, but it will aid very little in developing his insight into, and understanding of, number.

Cancellation implies blotting out. In the equation $3x-2+x+2=5$, the 2's may be *cancelled*.

The term *cancellation* should not be used in multiplication of fractions. The process performed is *division*, and that should be emphasized. In the example $\frac{3}{4}\times\frac{5}{6}$, the numerator of the first fraction and the denominator of the second are divisible by 3, as are both numerator and denominator of the product, $\frac{15}{24}$. It makes no difference whether you divide first by 3 (so-called cancellation) and then multiply, or whether you multiply first and then divide (reducing the fraction to its lowest terms).

Are the problems that children make up to illustrate numerical principles a valuable part of modern arithmetic?

Problems are at the heart of the arithmetic program—provided they are not mere verbalisms. A child cannot truly learn by storing up material which is not part of himself. He must use his own experiences to give expression to his developing insight. It is here that original problems prove vital and real.

An excellent way to vitalize arithmetic teaching is to provide experiences out of which the pupils can make problems of their own. A dearth of problems indicates that the children either have not had enough experiences to enable them to make up problems or else they do not thoroughly understand the meaning of a specific process. The teacher who depends entirely on textbooks or her own imagination to furnish her pupils with problems deprives them of the best means of acquiring insight.

What to Do in Social Studies

MARION PAINE STEVENS

Instructor, Elementary Department, Ethical Culture School, New York, N.Y.

YOUR questions on teaching social studies will be answered by Mrs. Stevens in this department. Address her in care of THE INSTRUCTOR, Editorial Department, Dansville, N.Y. For a reply by mail, enclose a stamped, addressed envelope.

Is there anything a teacher can do to prepare second- and third-graders for the post-war world and its many problems?

I have two suggestions to make.

First, we must answer the children's questions about the war frankly. In so doing we can talk also about the peace which is sure to come. Point out that fathers, brothers, uncles, and others are fighting for peace and world order. Emphasize that, while we must recognize that what our enemies are doing is wrong, we should also realize that most of the people in those countries are not personally to blame for the conflict.

The other suggestion is that we *must* be democratic ourselves in our little classroom worlds. The teacher should exercise control, of course, but the pupils must share in planning and carrying out activities and in making rules for behavior. Primary children are not too young to learn about democratic living through daily intercourse with other children.

What is meant by a picture map and what is the necessary procedure in making one?

Choose a map that you wish to copy. Mark it off in ½-inch squares. Then decide how much larger your picture map is to be. If it is to be four times as large, multiply ½ inch by 4 and square off your material (which may be heavy art or wrapping paper, or a light-colored window shade) in as many 2-inch squares as you have ½-inch squares. Copy the outline and wash off or erase the squares. Color with paints or crayons.

For the pictures, the pupils may (1) cut out small pictures from magazines and paste them on the map, (2) draw pictures directly on the map, or (3) draw them on other paper, color them, cut them out, and paste them in the proper places. A tiny cow may suggest cattle raising; an orange or an apple, fruit raising; a factory, manufacturing. Wherever practicable, bits of real products may be attached.

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Facts for Future Flyers

(Continued from page 19)

not see the whole face of the compass on a plane. We see but a little segment with the number of degrees on it. It looks very much like the speedometer on a car. Examine the picture of the instrument panel on page 18. The fixed white line on the glass of the compass is the lubber line (also called the lubber's line). It is used to show the exact compass heading. Zeros are left off the numbers on the compass. The lubber line shown here reads 110 degrees, the number of degrees our ship is flying on course. In finding the correct compass heading for a flight, allowance must be made not only for the wind, but for the magnetic attraction of the earth, and for the effect of the metal in the airplane on the compass needle. Get a compass and watch the needle swing to the north. Draw a picture of a compass that might be used in an airplane, using degrees instead of name directions.

Celestial navigation is a method of determining one's position and course by using the sun, moon, and stars for guides. It is used on long airplane trips. Our army, navy, and transport pilots use celestial navigation when flying from here to Alaska, England, Russia, China, Japan, Australia, or Africa. Why?

TRAFFIC RULES OF THE AIR

THE height of the cloud base from the ground is called the *ceiling*. While flying over open country we must have at least a thousand-foot ceiling. There is still another rule for flight that we must observe; that is, visibility. Visibility is the greatest distance toward the horizon at which large objects can be seen clearly. Regulation for visibility while flying is one mile at an altitude of 1,000 feet or less, outside of a control zone. Inside of a control zone, the visibility must be at least three miles. (See Fig. 2.)

A control zone is the space over a control airport, which is made by the Civil Aeronautics Board, to provide for the safety of aircraft on an airway. Flight is controlled within this zone by radio, lights, flags, and signals.

The visibility in miles appears on every weather map for each station. Before making a flight, a pilot must consult a weather map to make sure that conditions for flying are good.

WEATHER FOR FLYING

CLOUDS are important to all of us, because they make the weather. They are especially important to the pilot, as they may be dangerous to flying. A pilot must be able to identify cloud forms and know instantly whether he can fly through them or must fly around them.

Clouds are formed when the water vapor in the air is cooled enough to become condensed into tiny floating globules of liquid water, or crystals of ice or snow. There are four forms that clouds may take: cumulus, stratus, cirrus, and nimbus. (See Fig. 3.)

Cumulus clouds are in bunches that may look like heads of cauliflower or wads of cotton in the sky. These are not dangerous and rather fun to fly through as they are slightly bumpy, due to the air currents causing them.

Stratus clouds are in sheets that either cover the sky completely or come down to the ground as fog. Fog is always dangerous to fly in. If the stratus sheet is high enough, flying may be done under or over it.

Cirrus clouds are the feathery clouds high in the sky. They are made of ice crystals and are often called mare's-tail. Pilots rarely fly high enough to be near these clouds, as they start to form at about 20,000 feet altitude.

Any cloud except a high cumulus is called a *nimbus* as soon as it produces rain. Nimbus formations combine with stratus or cumulus in nimbo-stratus and cumulo-nimbus clouds. Nimbo-stratus clouds sometimes cover the sky. From them falls a rain that might last for days. Pilots sometimes fly over them, but flying in weather like this should be left to experienced flyers, as visibility is greatly reduced.

Our violent thunderstorms come from cumulo-nimbus clouds. They may rise fifty miles into the atmosphere in a huge anvil shape, dark and forbidding underneath. Swift currents of air, rushing up and down at the rate of 200 miles an hour, carrying hailstones with them, are in the center of these clouds. If a plane were to be caught in one of these, it would be ripped into small pieces. However, these clouds can be seen from a distance while flying, and can be easily avoided.

Watch the sky each day and try to identify the cloud forms. You can make a chart of these forms, using absorbent cotton pulled into the proper shape and pasted above the names. For cumulus clouds, roll the cotton into balls. For stratus clouds, roll cotton into tubular shapes. Spread more cotton out very thinly to look like wispy cirrus clouds. Put the chart on the bulletin board.

TIPS FOR MODEL BUILDERS

IF YOU are making a model that has a skeleton to be covered with tissue paper, iron out the paper with a warm iron, so that it is smooth. Doing this will reduce the weight of your model. An iron can also be used in bending balsa wood into a desired shape. For a rounded form, hold the balsa around the bottom of a warm iron. If you wish to point the balsa, bend it over the point of the iron.

Before working on your models, make sure all of your materials are convenient. Keep your model clean and neat. Work slowly and carefully, so that your plane will be exact. If there should be extra glue squeezed out between parts, wipe it off, and when dry, sandpaper for a smooth finish. Odd pieces of glue add weight at the wrong places. Do not attempt to pick up or move any part that has been glued until it has thoroughly dried.

Glue is expensive and sometimes difficult to get. Use it sparingly and keep it covered when it is not in use as it evaporates rapidly. It can be applied with an ordinary toothpick instead of a balsa stick.

IDENTIFICATION

WING tips also have different shapes. (See Fig. 4.) Some are rounded, others square, raked, or oval. The next time you see a plane in the sky, try to identify the shape of the wings and the wing tips.

The Republic P-47 Thunderbolt (see page 19) has been called the best fighter in the world. This plane can climb high into the atmosphere (over 40,000 feet) and fight the enemy from above. It is a single-seated pursuit ship. The low wing has a straight leading edge and a curved trailing edge. The wheels retract into the wings, the tail wheel into the fuselage. Its nose is blunt as it has an air-cooled radial engine. Each wing carries four free-firing machine guns. Fast moving ships are difficult to handle, but this plane has many advantages due to automatic controls. The Thunderbolt is a big ship, with a wingspread of forty-one feet and a fuselage thirty-two feet and eight inches long. A four-bladed propeller whirls through the air to pull this powerful fighter. With all guns firing, its force is equal to that of a five-ton truck hitting a brick wall at sixty miles an hour.

Rationalizing Fractions-III

(Continued from page 21)

A dime is what part of a half dollar? Why?

Five dimes make what part of a half dollar? Why?

What part of a dollar do three dimes make? Why?

Write three tenths in figures.

What part of a dollar do nine dimes make? Why?

Write nine tenths in figures.

Find the cost of 8 books at a quarter of a dollar each.

How much will 12 pictures cost at a half a dollar each?

How many half-dollar caps can be bought for one dollar?

How many caps at a quarter each can be bought for one dollar?

Call on children at this point to make original problems using the fractions in this and previous lessons for the class to criticize and solve.

Seatwork Activities—

Materials: Sheets of squared paper, ruler, and pencil.

On your squared paper make squares or oblongs as directed in each of the following questions. Make shadings to illustrate or show meaning. The figures in the directions mean the number of little squares on the squared paper. For example, "an oblong 2 by 3" means an oblong 2 squares wide and 3 squares long. Draw each square or oblong described and shade it as directed.

1. Draw an oblong 1 by 2 and shade ½ of it.
2. Make a square 2 by 2 and shade ½ of it.
3. Make an oblong 1 by 3 and shade ⅓ of it.
4. Draw an oblong 1 by 5 and shade ⅕ of it.
5. Draw an oblong 2 by 3 and shade ⅙ of it.
6. Make an oblong 2 by 4 and shade ⅛ of it.
7. Make an oblong 3 by 4 and shade 1/12 of it.
8. Make a square 4 by 4 and shade 1/16 of it.
9. Make an oblong 4 by 6 and shade 1/24 of it.
10. Draw an oblong 2 by 5 and shade 1/10 of it.
11. Make an oblong 1 by 3 and shade ⅔ of it.
12. Draw an oblong 2 by 3 and shade ⅚ of it.
13. Make another oblong 2 by 3 and shade ⅔ of it.
14. Compare ⅔ and ⅚ in the two oblongs in questions 12 and 13. Write the statement. (⅔=⅙)
15. Shade ⅕ of an oblong 2 by 5.
16. Shade 3/10 of an oblong 2 by 5.
17. Compare ⅕ and 3/10. Write the statement.
18. Make an oblong 2 by 5 and shade ⅗ of it.
19. Shade 9/10 of an oblong 2 by 5.
20. Compare ⅗ and 9/10. Write the statement.
21. Make an oblong 2 by 5 and shade 7/10 of it.
22. Shade ½ of an oblong 2 by 5.
23. Compare 7/10 and ½. Write the statement.
24. Draw an oblong 2 by 4 and shade ⅜ of it.
25. Shade ⅜ of a square 4 by 4.
26. Shade 9/16 of a square 4 by 4.
27. Compare ⅜ and 9/16. Write the statement.
28. Shade ⅘ of an oblong 2 by 5.
29. Shade 9/10 of an oblong 2 by 5.
30. Compare ⅘ and 9/10. Write the statement.
31. Draw two oblongs 2 by 3 and shade to show that ½=⅓.
32. Draw two oblongs 2 by 4 and shade to show that ¾=⅜.
33. Draw two oblongs 3 by 4 and shade to show that ¾=9/12.

Low-Cost Scenery for Plays

(*Continued from page 33*)

the scene. Large sheets of cardboard and a little powder paint will make a characteristic windmill for a Dutch play. Cardboard cartons can be cut and painted to simulate tulips along the footlights.

A chorus is likely to look awkward on the stage. Try placing the singers in cardboard choir stalls or back of low garden walls.

Flat, modernistic bushes and low trees cut from wallboard, or cardboard cartons, can be painted effectively. Brace them from behind and use them for decoration or as wings to conceal side entrances for outdoor scenes.

For a "western" scene you must have a cactus. Cut it out of a corrugated cardboard carton, and paint it. A few saplings will make a corral at one side of the stage. If someone will lend you a saddle, add this and some clothesline rope for atmosphere. An old wagon wheel and a cardboard pump will add immeasurably to the effect.

For all-round usefulness you will like having a "skeleton house." A few laths nailed together to form a sort of half gable can be set at the back or at one side of a stage. By tacking brown paper to the skeleton one can paint a log cabin for one play or make a simple cottage for another. A door that will really open and close adds to the effectiveness of the skeleton house. But be sure the uprights forming the door frame are sturdy enough to support a real door.

Whom to Thank

(*Continued from page 48*)

CHILDREN—Good morning to you, Mr. Farmer. We want to thank you.

FARMER—Good morning, children. I'm glad to see you. What do you want to thank me for?

CHILDREN—For the wheat that made the flour that made the delicious cookies that we had in school today.

FARMER—Well, I'm glad you liked them, children. But I only planted the seeds. They grew up by themselves. Here are some wheat plants. (*Wheat Plants enter.*) Thank them.

CHILDREN—Thank you, Wheat Plants, for the little wheat seeds that made the flour that made the delicious cookies that we had in school today.

WHEAT PLANTS—You are indeed welcome, children. We are glad you liked the cookies. But we are only little hard seeds. The farmer puts us in the ground, but if it were not for the rain and the sun we could never grow. We'll call the rain and the sun and you can thank them. (*The Farmer and Wheat Plants go out, and Rain and Sun enter.*)

CHILDREN—Good morning, Rain. We wish to thank you.

RAIN—Thank me, dear children? For what?

CHILDREN—Why, for helping the little wheat seeds grow so that they could produce other wheat seeds to make flour to make the delicious cookies that we had in school today.

RAIN—You are very nice children to thank me, but don't you know who makes the rain?

CHILDREN—No, who makes the rain?

RAIN—Why, the mighty Sun. All day he shines on the lakes and rivers and oceans. He draws water up into the sky and stores it in clouds so that it can fall back on the earth and help all the little seeds to grow. Turn to the mighty Sun and thank him. (*Bows toward the Sun, and then exits.*)

CHILDREN—We will. We thank you, Sun, for causing the rain to help the wheat seeds to grow, to make flour to make the delicious cookies that we had in school today.

SUN—Dear children, I'm glad you enjoyed the cookies, but you shouldn't thank me. Don't you know whom you should thank?

CHILDREN—Did someone make you, too, mighty Sun?

SUN—Of course.

All things bright and beautiful,
All creatures great and small,
All things wise and wonderful,
The Lord God made them all. (*Exits.*)

CHILDREN—Why, we learned that!

MARY—That's what the teacher meant when she said that God made everything.

JOHN—That's right. And now we know why we say, "God is great, God is good. Let us thank him for our food."

CHILDREN—Now we know whom to really thank.

Poster Suggestions

(*See page 37*)

Primary children like to feel that they too are doing their part in the war. This poster will serve its purpose if it stimulates some child to make a poster using his own ideas.

Children will think of other kinds of scrap needed in the war effort, to draw on posters. Some will like to draw a child pulling a wagon of junk, or holding some old rakes over his shoulder. Others may like to draw children stepping on tin cans to flatten them. Still others will draw pictures of children carrying cans of fat to the store, while others can show the storekeeper accepting the fat.

Any situations where adults use the services of children to help out in wartime shortage of labor may prove excellent suggestions for posters.

Suggestions for Miniatures

(*See pages 34-35*)

Most girls and boys enjoy making miniature buildings. Why not construct a miniature art gallery? Cardboard boxes such as hatboxes can be fastened together to form a series of rooms. Paint the sides an attractive tint.

Collect color miniature prints of art subjects until you have enough to make an adequate showing. Mount each one carefully on stiff paper larger than the picture. With poster paint or water colors, paint simple neutral-colored frames around the pictures.

Group them according to schools of painting, or subject matter such as portraits and landscapes.

Visit an art gallery if possible. Decide which arrangement is more pleasing, one row of pictures at about eye level around the walls, or row above row up to the ceiling.

Pin or paste the color miniatures on the walls. Small cardboard boxes can be transformed into benches for the art gallery and labels can be typed. Additional rooms can be added to the gallery as the collection grows.

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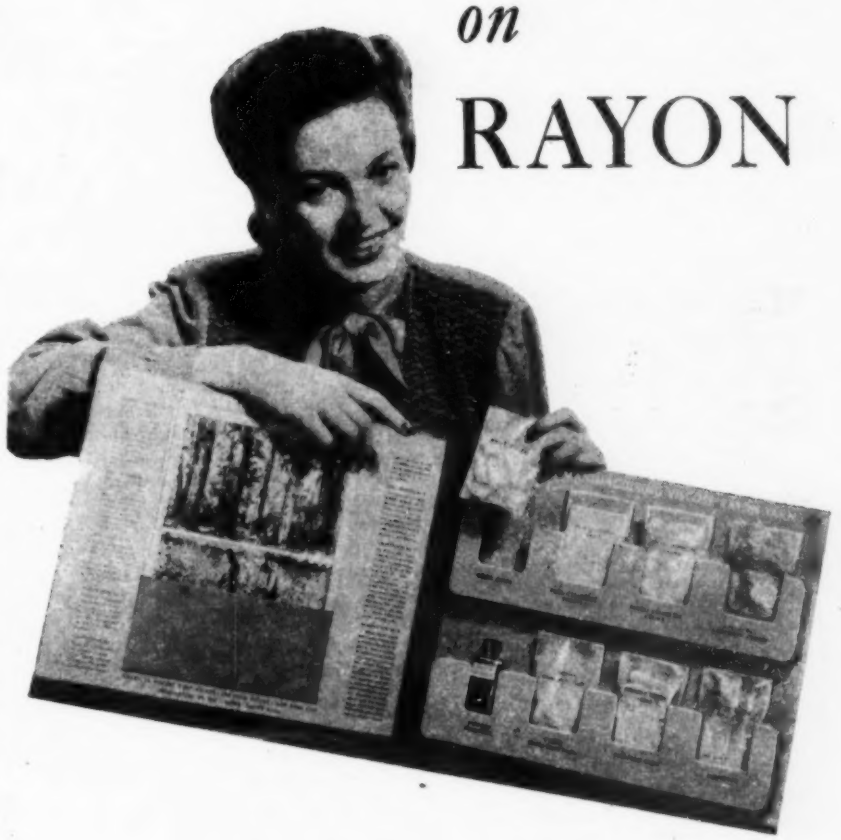

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Steel and Our Defense

(*Continued from page 26*)

a) Tin cans, steel drums, other containers.
b) Roads and railroads.
c) Construction work, defense plants.
d) Automotive industry.
e) Lend-lease.
f) Machinery and tools.
g) Ordnance stores.
h) Shipbuilding.
i) Oil, gas, water, and mining industries.
j) Agriculture.

D. Oral reports.—Brief talks on the growth of cities such as Pittsburgh, Birmingham, and Gary.

E. Summaries.—The following conclusions may be drawn.

1. There is a great need for continued contributions of scrap.
2. Every person must continue to help.
3. We must obtain a lasting peace. Then steel can be used for construction instead of destruction.

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The Playhouse—A Primary Unit

(*Continued from page 15*)

14. The children used pints and quarts in measuring liquid for gelatin salad and for chocolate milk.
15. The rod in the clothespress for hangers was 1 foot and 10 inches long. Measuring the rod for cutting was a number problem in addition.
16. The children cut wallpaper into strips five feet long. They counted by 5's to see how much border was needed.

F. Social studies.

1. We discussed types of houses in various climates, and compared them with our kind of houses, and learned how each type is suited to its location.
2. The children discussed rules of etiquette to be practiced at home and at school.
3. They learned about the various types of skilled workmen needed in the building of a house: architect, contractor, carpenter, paper hanger, plasterer, painter, electrician, and plumber.
4. We discussed ways to help Mother at home and the janitor at school.
5. We planned a party and assigned a task to each child.
6. The children learned that our shelter and food are produced by the combined efforts of many persons.
7. The children gained an appreciation of the role of the family in the home.
8. A lesson in manners was followed by the making of posters on good eating habits.
9. The children learned about various types of houses and the progress made in building them.
10. Three children visited a lumber mill and outlined for the rest of the class what they had learned.

G. Music.

1. The rhythm band played for our party.
2. Appropriate songs were learned.

H. Health and safety.

1. Children made posters to show toys "safe" and "not safe" for baby.
2. Meals were planned for Sally.
3. The four windows in our house prompted a discussion of the need of sunlight and fresh air in all houses.
4. The children made up health rules for Sally.
5. The children planned the following menu for our dinner party:

Macaroni and Tomatoes
Gelatin Salad with Apples and Carrots
Whole-Wheat Bread with Butter
Chocolate Milk Cookies

6. "How to Avoid Accidents" was discussed. These rules were drawn up:
Keep sharp knives out of the dishpan.
Keep off wet linoleum.
Be careful around the stove.
Open and shut doors carefully.
7. Dressing Sally taught the children the proper types of clothing to wear indoors, outdoors, and while sleeping.
8. One child brought a toothbrush for Sally. This led to a discussion on "How to brush our teeth."
9. We washed doll bedding and dresses.

I. Art.

1. The children made "Get Well" cards, which looked like our playhouse, to send to sick children.
2. An easel was made from the backs of old charts and a wallpaper book stand. Here the children drew large pictures when other work was finished.
3. In class the children modeled articles of furniture from clay.
4. For our sand table the second-grade children made clay logs and built a log cabin.
5. The children cut out designs and traced and colored them in definite patterns on paper to represent wallpaper.
6. Some children drew pictures of houses in stories. Some made pictures of houses in other lands.
7. The children made menus and place cards for our dinner party.
8. They made invitations for mothers.

OUTCOMES

The children showed increased interest in their own home life.

A closer connection now exists between home and school.

Children show a greater desire to read.

Improvement in self-expression is evident.

The individual child's vocabulary is enlarged.

Children have observed nature more closely.

Health habits have improved.

Home and school are kept more attractive.

Greater skill in paper cutting, drawing, modeling, and penmanship is evident.

There is more co-operation and better teamwork among the pupils.

The children have learned to give consideration to others.

They are willing to try again when they do not at first succeed.

Children now try to make their home a happier place in which to live.

Children learned to like foods which they formerly disliked.

Children chose stories more carefully because the group judged these stories.

Children developed the habit of putting away their things.

LEADS TO OTHER UNITS

The children wanted to have a garden for Sally. This could lead to a unit on gardens and provide science lessons.

The sign "Homes, Here, There, and Everywhere" hangs above pictures drawn by the children. Projects relating to a particular type of home and its people would naturally follow. Need for certain types of homes might lead to a study of "Ways of Living in Other Places."

The part each one plays in a home would lead to a project about "Workers."

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How to Secure a Teaching Position

(*Continued from page 57*)

It is advisable to send a good small photograph with your application. Avoid affected poses.

Unless a set of official credentials can be forwarded, the letter should include the names and addresses of three or four persons who can speak with authority regarding you and your work. A stamped, addressed envelope should be enclosed.

HINTS FOR THE INTERVIEW

(See June 1942 issue, page 12.)

Be natural, self-possessed, quietly dignified, and friendly but not gushing.

Try to give an accurate picture of your abilities. Stress the service you have to offer rather than your need of a position. Be positive, not negative; e.g., state what you can do, not what you cannot do. Be sure that you are being seriously considered for the position, and that you have convinced the superintendent that you have something to offer that is worth paying for, before *you* raise a question regarding salary. If he asks you what salary you desire, a good answer might be, "a salary commensurate with your salary scale and my training and experience." When you have accomplished the purpose of the interview, *leave*.

First Attempts in Prose and Verse

(*Continued from page 13*)

have been improved. This satisfaction is in itself a beginning and encourages further effort. The greater the regard that children have for their writing, the more likely it is that their desire to write will continue. The taste of accomplishment will spur them on, but they also need encouragement from the teacher and the approval of the class. These factors figured largely in keeping the best one of our group active in producing more writing.

We are not wishful thinkers. We do not expect to make authors of any—of even the most promising. We are interested wholly in stimulating imagination and arousing sensitivity to coherent and interesting expression, with an awareness of the life about us, even the little things.

EDITORIAL NOTE: When Miss Mason carried on the activities described in this article, she was an instructor in Elementary Education at Teachers College, University of Nebraska.

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30 Madonna of the Magnificat—Botticelli
31 Interior of a Cottage—Israels
32 George Washington—Stuart
33 The Money Counter—Murillo
34 Feeding Her Birds—Millet
35 The Painter's Sons—Rubens
36 The Grand Canal, Venice—Turner
37 The Rail Splitter—Ferris
38 Return to the Farm—Troyon
39 Autumn—Mauve
40 The Gleaners—Millet
41 Fog Warning—Homer
42 Holy Night—Correggio
43 Oxen Plowing—Bonheur
44 The Artist's Mother—Whistler
45 Harp of the Winds—Martin
46 The Strawberry Girl—Reynolds
47 Madame LeBrun and Daughter—LeBrun
48 Joan of Arc—Bastien-Lepage
49 Mona Lisa—Da Vinci
50 The Blue Boy—Gainsborough
51 Portrait of the Artist—Rembrandt
52 The Angelus—Millet
53 Children of the Shell—Murillo
54 Dance of the Nymphs—Corot
55 The Jester—Hals
56 Avenue at Middelharnis—Hobbema
57 Children of Charles I—Van Dyck
58 The Valley Farm—Constable
59 Christopher Columbus—Del Piombo
60 Icebound—Metcalf
61 Madonna del Gran' Duca—Raphael
62 Infanta Maria Theresa—Velasquez
63 Solemn Pledge, Taos Indians—Ufer
64 Spring—Corot
65 Lavinia—Titian
66 The Spinner—Maes
67 A Girl Reading a Letter—Vermeer
68 Mill Pond—Inness
69 The Pictograph—Alexander
70 The Market Cart—Gainsborough
71 Madonna and Child—Lippi
72 Whistling Boy—Duveneck
73 Erasmus—Holbein
74 The Belated Kid—Hunt
75 Flower Girl in Holland—Hitchcock
76 The Escaped Cow—Dupre
77 The Water Mill—Hobbema
78 Children of the Sea—Israels
79 The Laughing Cavalier—Hals
80 Syndics of the Cloth Guild—Rembrandt
81 Northeaster—Homer
82 Madonna of the Harpies—Del Sarto
83 Don Carlos Baltasar—Velasquez
84 The Lace Maker—Vermeer
85 The Blessing—Chardin
86 Penelope Boothby—Reynolds
87 Bringing Home the Newborn Calf—Millet
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89 Childhood—Perrault
90 Fairy Tales—Shannon
91 Pilgrims Going to Church—Boughton
92 Angels' Heads—Reynolds
93 Itinerant Candy Vender—Blum
94 Playdays in Holland—Charlet
95 A Distinguished Member of the Humane Society—Landseer
96 Carnation, Lily, Lily, Rose—Sargent
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They Grew Up Together

(Continued from page 29)

never heard that kind of crying before. It was the kind of crying that shows you are lonesome for your mother and daddy, that shows you are sorry you've been naughty and you want to go home.

The little girl's sobbing made the pixie feel very sad and this was a new feeling for her; she had never felt sad before. So she went over to the crying child. "Little girl, may I help you?" she said in a soft, gentle voice, and the little girl heard, though I don't know how, because Northeast Wind was blustering and blowing and rain was falling all about her.

"Oh, please, please find my mother and daddy and my nice warm house."

"Of course, I will," said the pixie. "Hold onto my wing and I'll go ahead. I can see in the dark."

"Oh, can you?" said the little girl. "I can sometimes when I'm home but it's so very dark up here I'll never find the way. Do please, please show me the way to the bridge across the brook, to the little green lane and up to my very own door."

However, Northeast Wind didn't want them to go, so he pulled and dragged at the little girl and the pixie and he blew sheets of rain upon them. But the pixie, who ordinarily would have hidden under a clump of oak leaves, only said, "Come on, little girl, I know the way. I'll take you along."

When they came to the green lane, it was green no longer. It was a dark gray road with trees that moaned and groaned and threw raindrops in the little girl's face.

Now the pixie wasn't tiny any more. She was growing taller. She wiped the raindrops off the little girl's face and guided her around puddles and right up to her own doorstep.

The little girl looked up at her and said, "Oh, you dear kind fairy, thank you so much. I'll never forget you. I'm going to grow up, too, and do the things I must do to be a good grownup, and any day I forget—"

"Any day you forget I'll come and help you," said the pixie who had grown into a fairy.

Even today away up on the hillside may be seen the bayberry bush where the pixie sat swinging and, down below, the bayberries all scattered on the ground—unless someone has gathered them and made them into a candle.

Keys to Tests

(Continued from pages 30 and 31)

A TEST IN ARITHMETIC

I. 1. T 3. F 5. T 7. T 9. T
2. T 4. F 6. T 8. F 10. F

II. 1. 3 pints
2. 17 cents
3. 30 oranges
4. 90 minutes
5. 7 months
6. 14 ounces
7. 4 cents
8. 5 cups
9. 238 beads
10. 55 cents

III. 1. addition
2. multiplication
3. subtraction
4. division
5. multiplication
6. subtraction

IV. 1. Tom is 11 years old and 57.5 inches tall.
2. James is 12 years old and weighs 98 pounds.
3. Mrs. Barton paid $.38 a dozen for eggs.
4. George received $.75 change from a dollar bill.
5. A circus ticket for children costs $.50.
6. The flagpole in our schoolyard is 30 feet high.
7. Jean's mother gave her $.15 an hour for taking care of her baby brother.
8. Bob's catcher's mitt cost $2.80.
9. The depth of the snow was 12.5 inches.

V. 1. the number of miles his automobile travels on one gallon and the number of miles in the trip
2. the price of the house, the amount of the down payment, and the amount of each installment
3. the number of miles in the trip and the time used in making it
4. the rate per line and the number of lines
5. the number of pounds in the barrel

WORLD GEOGRAPHY TODAY

I. 1. j 5. c 9. d 13. f 17. m
2. p 6. b 10. l 14. r 18. s
3. e 7. n 11. h 15. o 19. k
4. a 8. q 12. i 16. g

II. 1. k 6. t 11. g 16. e 21. p
2. i 7. u 12. l 17. m
3. d 8. a 13. r 18. o
4. f 9. h 14. n 19. s
5. c 10. b 15. j 20. q

BETTER ENGLISH

I. 1. are 6. Is 11. is 16. Are
2. are 7. are 12. is 17. am
3. is 8. is 13. is
4. is 9. is 14. are
5. is 10. is 15. is

II. 1. *absence*
2. *melodious*
3. *mechanism*
4. *separate*
5. *convoy*
6. *patriotic*
7. *enmity*
8. *nutrition*
9. *propaganda*
10. *military*
11. *essential*
12. *library*
13. *viaduct*
14. *rationing*

Sentences will vary.

RATIONED PRODUCTS

RUBBER

I. 1. T 3. T 5. T 7. T
2. F 4. T 6. T 8. F

II. 1. h 3. d 5. c 7. b 9. e
2. f 4. a 6. g 8. i

SUGAR

1. beet 6. cane 11. beet 16. beet
2. beet 7. cane 12. cane 17. cane
3. beet 8. beet 13. beet 18. beet
4. cane 9. cane 14. beet 19. cane
5. beet 10. cane 15. beet 20. cane

A Schoolroom Weather Bureau

(Continued from page 33)

Thursday they noted a very blue sky with cirrus clouds high above the horizon. Are they likely to have picnic weather on Saturday?

Solution: No. The chances are that the cirrus clouds will bring rain on or before Saturday.

2. Problem: Ralph and Ed decided to take a "rain or shine" hike on Friday after school. They examined the sky at noon, and observed fracto-cumulus clouds (cumulus clouds torn and tumbled by the wind) in the west. They noted also that the wind was from the northeast. What sort of clothing should they wear for hiking?

Solution: They should wear raincoats and carry extra sweaters, as the weather signs say "cold and rainy."

3. Problem: Billy had received a kite and a tennis racket for his birthday. He saw a mackerel sky on Friday. Which of his new gifts did he probably play with on Saturday?

Solution: The kite, because a mackerel sky would portend a windy day, good for kite flying.

B. Weather quotations.

1. Some weather proverbs are logical; others are mere superstitions. Children like to find the reasons back of them.

2. Let the children invent sayings of their own based on weather facts they have studied.

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412. Iron Horse Goes Modern

From the earliest crude locomotives to today's streamliners—this is the scope of *The Railroad*, a 36-page booklet now published in a revised edition by the Santa Fe Railway. The building and development of the Santa Fe are described; what it means to start and run a railroad is explained; several pages are given to modern freight service; and the scenic wonders of the Southwest are stressed. Model-railroad builders will find plans and directions. An inserted sheet gives "Suggestions for Classroom and Home Projects." There are 80 illustrations. Teachers of seventh and higher grades may obtain a supply for their pupils. In requesting, state grade and number of copies desired.

413. Making Ice Cream

Remember when Mother and Father regarded ice cream as an extravagance, permitted only on holidays and birthdays and as a special "company" dessert? Nobody thought of it then as a food. Now the quantity manufacture of ice cream is suggested as a subject for classroom discussion. Health and geography units may profitably be developed, and an ice cream plant may be visited by the children. The National Dairy Council offers an illustrated booklet, *Ice Cream Is Made That Way*, by Laura Oftedal of the Elementary School of the University of Chicago, describing such a visit by two boys. With it comes a sheet of teaching suggestions.

414. Military Planes in Flight

Large action pictures of United States military planes (9" x 12") ought to make a real stir in your classroom. Eight such pictures—with backgrounds as diverse as the South Seas, the Nile, and Alaska—are offered teachers by Wright Aeronautical Corporation, manufacturers of Cyclone and Whirlwind aircraft engines. Here are the Douglas A-20-A, Vultee Vengeance, Boeing Flying Fortress, Lockheed Hudson, and others. Better request your set soon, as the supply is limited!

415. That Precious Oil

What petroleum means to this age of machines is more generally realized now that, in order to further the war effort, we are having to cut down on our consumption for transportation and heating. *Your Industry and Mine* (issued by the American Petroleum Institute) describes the growth of the oil industry since 1859 in a way that teachers can use to advantage. *Petroleum on 3 Fronts* and *What Price Gasoline?* will be sent also.

416. For the Budding Aviator

Classroom interest in flying as a personal activity (rather than simply as a commercial enterprise or a method of warfare) is stimulated by realization that the time is near when individually owned planes will be as common as automobiles are now. That material relating to light planes appeals to pupils has been proved by Aeronca Aircraft Corporation. They will be glad to send teachers a budget of illustrated folders relating to such planes.

Your requests for nutrition material listed on page 7 can be mailed to us in the same envelope as your requests for Treasure-Trove material.

The Man Who Struck Oil

(Continued from page 52)

He's only repeating some nonsense he heard on the street. So you're aiming to drill the world's first oil well, and you want me to help you? Folks will tell you I've never been one to turn down a chance for a bit of adventure, and I do believe you have a right idea, bringing oil up out of the rocks by force. I'll do it, Colonel Drake, and Sam here will be proud to help, too. Won't you, Son?

SAM—If you're going to stay and want me, Pa, I'll stay, but these Titusville boys had better not yell "Injun ile!" at me.

COLONEL DRAKE—Good for you, Sam. Mr. Smith, you will be in charge of all work. I have received financial aid today, and as soon as our tools are ready, we can begin to drill.

UNCLE BILLY—We can have everything ready by early summer, Colonel. We'll drive pipe down until we hit solid rock and then we'll drill. How far we'll have to go, I haven't an idea; but, sooner or later, we'll either have oil to show or I expect you and I had better be prepared to hear some mighty unflattering opinions of ourselves.

COLONEL DRAKE—Yes, we will be the butt of many a joke; but with hard work, endurance, and firm faith, I believe we will succeed. I am as certain that there is oil in the earth as I am that there is a sun in the sky.

UNCLE BILLY (*offering his hand*)—You can count on Sam and me, Colonel Drake, to do our part in bringing that oil up into the sunshine.

ACT III

(*Hotelkeeper comes to the door. Villagers are passing.*)

HOTELKEEPER—Good morning, Ben and Silas. Pleasant day, though it may be a hot one.

BEN—Well, not too hot for August. Say, is Colonel Drake still here?

HOTELKEEPER—Yes, the Colonel and his lady. A fine lady she is, too. And the boy is as nice a little tad as you'll find. The Colonel isn't much of a talker, but he's a real gentleman.

SILAS—That salt-driller Billy Smith and his son Sam, they certainly 'tend to their affairs, too—'most as closemouthed as the Colonel himself.

MARY—Silas, aren't you ashamed to try to pry into the Colonel's business?

SILAS—Well, now, Mary, I was just trying to satisfy my mind.

BEN—Satisfy it as to what, Silas?

SILAS—As to why any man would be drilling into the earth some fifty or sixty feet—for salt—and not finding any salt would keep right on drilling. Seems like an ordinary man would be discouraged.

MARY—Yes, Silas, any ordinary man. But somehow, Colonel Drake doesn't seem like an ordinary man. If he was, he most likely would have chased you and others I won't mention away from his salt well.

SILAS (*somewhat abashed*)—Aw, now, Mary, we haven't done any harm. I'll admit we've been a mite curious, 'most as curious as you women are to know where Mrs. Drake buys her bonnets.

MARY—You come along with me, Silas. I'm curious to see if your chores are still waiting. Come a— (*Sound of running feet is heard.*) Mercy, who's that? Must be someone going for a doctor.

HOTELKEEPER—It's the driller's boy. Something must be wrong at the well.

(*Sam rushes in and Villagers crowd around him.*)

SAM—Let me through. I have to see the Colonel.

JAMES—What's wrong, Sonny?

SAM—My father sent me. I have to see Colonel Drake.

(*Colonel Drake comes out of hotel.*)

COLONEL DRAKE—Hello, Sam. What's wrong? (*Turns to crowd.*) Let the boy speak.

SAM—Oh, Colonel Drake, Pa says to come aflying, 'cause as sure as you're living, we've got oil in our salt well.

COLONEL DRAKE (*grasping Sam's arm in excitement*)—Oil! Oil at last! You're sure, Sam? Sure?

SAM—I saw it myself, sir, and Pa's bringing it up out of that hole with an old tin pipe. Come and see, Colonel. I guess folks can't say you're crazy, now.

COLONEL DRAKE—Yes, Sam. I'm coming. I—

(*Mrs. Drake and Edward enter.*)

MRS. DRAKE—What is it, Edwin?

COLONEL DRAKE—It is splendid news. Billy Smith has reached oil.

MRS. DRAKE—Oh, Edwin! I am so glad! At last your dream has come true.

HENRY (*shoving forward*)—Colonel, we heard what young Sam said. Maybe we haven't any right to know, but can you tell us what this drilling for oil will mean?

COLONEL DRAKE—What will it mean? God willing, I believe it will give to the world a new enterprise—one which will bring employment and wealth to millions and will write the name of Titusville forever in the history of the world.

BEN—Why, it's as good as gold! We'll be a second California! Three cheers, folks, for Colonel Drake—the man who struck oil!

(*Amid cries of "Hurrah for Colonel Drake!" the curtain falls.*)

Developing Better Reading

(Continued from page 20)

to make the proper techniques sufficiently clear and to guide the pupil toward the habituation of them. Remedial work must make the techniques apparent and must provide the detailed guides toward the correct forms, and the checks against the incorrect forms, which ordinary instruction fails to supply. Where "normal" instruction is recommended for remedial work, it should be used with greater thoroughness, more detail and emphasis, and be adapted more carefully to the pupils' idiosyncrasies. In many cases, these steps are sufficient. More drastic or formal measures to be taken in extreme cases would include:

Demonstration and explanation by the teacher of left-to-right progression.

Demonstration of methods of studying individual words from left to right.

Study and use of the sixty or so common phonograms.

Tracing and simultaneously pronouncing letters and words.

Reading is indeed a varied, subtle, and highly complex process. It includes the processes involved in recognition, comprehension, interpretation, evaluation, and application. The highly complex abilities involved are not easily detected and observed.

The teaching of reading is difficult. Satisfactory results cannot be had easily or quickly. While basic habits are often acquired by the end of the sixth grade, the attainment of the necessary background and the mental habits involved in the various kinds of reading come only after carefully planned guidance extending throughout the elementary and secondary school program.

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